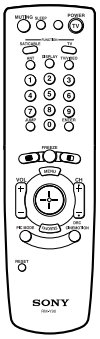
Self Diagnosis Supported model

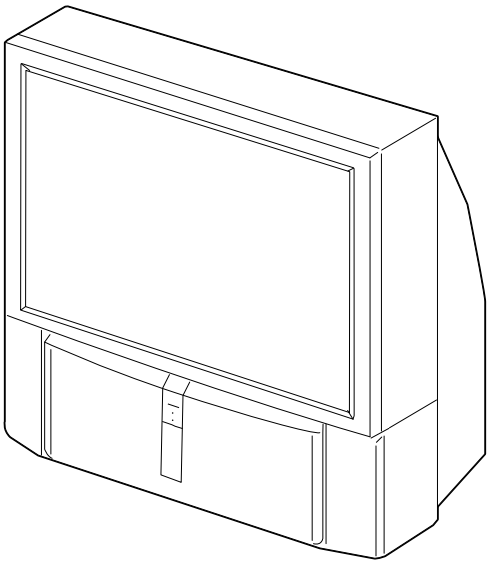
SERVICE MANUAL RA-6 CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KP-43HT20	RM-Y908	US	SCC-P65C-A
KP-43HT20	RM-Y908	Canadian	SCC-P65C-A
KP-53HS20	RM-Y908	US	SCC-P65D-A
KP-53HS20	RM-Y908	Canadian	SCC-P65D-A

MODEL	COMMANDER	DEST.	CHASSIS NO.
KP-53HS30	RM-Y908	US	SCC-P65A-A
KP-53HS30	RM-Y908	Canadian	SCC-P65A-A
KP-61HS20	RM-Y908	US	SCC-P65E-A
KP-61HS20	RM-Y908	Canadian	SCC-P65E-A
KP-61HS30	RM-Y908	US	SCC-P65B-A
KP-61HS30	RM-Y908	Canadian	SCC-P65B-A



RM-Y908



KP-43HT20/53HS20/53HS30/61HS20/61HS30

COLOR REAR VIDEO PROJECTOR

SONY®

SAFETY CHECK-OUT

(US model only)

After correcting the original service problem, perfom the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recom mend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any). Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate;be suspicious of your HV meter if sets always have low HV.
9. Check the antenna temminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microampers) . Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to usc these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. NearIy all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground;the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-l00 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

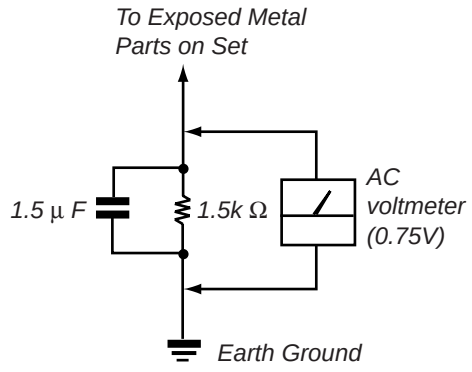


Fig. A. Using an AC voltmeter to check AC leakage.

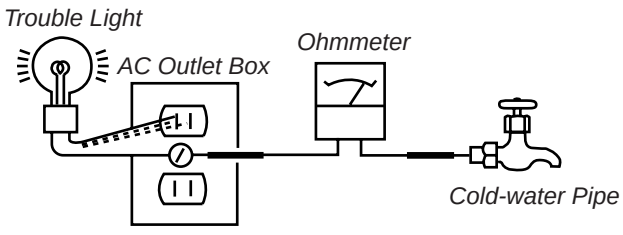


Fig. B. Checking for earth ground.

(CAUTION)

THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESECOMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFEOPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

(ATTENTION)

CES INSTRUCTIONS DE SERVICE SONT À L'USAGE DU PERSONNEL DE SERVICE QUALIFIÉ SEULEMENT. POUR PRÉVENIR LE RISQUE DE CHOC ÉLECTRIQUE, NE PAS FAIRE L'ENTRETIEN AUTRE QUE CELUI CONTENU DANS LE MODE D'EMPLOI À MOINS QUE VOUS SOYEZ QUALIFIÉ FAIRE AINSI.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE DELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DEPANNAGE.
LE CHÁSSIS DE CE RECEPTEUR EST DIRECTEMENT RACCORDÉ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS ÁLA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MAPQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES CONT D'UNEIMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

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SECTION 1
SELF DIAGNOSIS FUNCTION

1. Summary of Self-Diagnosis Function

- This device includes a self-diagnosis function.
- In case of abnormalities, the TIMER/STAND BY indicator automatically blinks. It is possible to predict the abnormality location by the number of blinks. The Instruction Manual describes blinking of the TIMER/STAND BY indicator.
- If the symptom is not reproduced sometimes in case of a malfunction, there is recording of whether a malfunction was generated or not. Operate the remote command to confirm the matter on the screen and to predict the location of the abnormality.

2. Diagnosis Items and Prediction of Malfunction Location

- When a malfunction occurs the TIMER/STAND BY indicator only blinks for one of the following diagnosis items. In case of two or more malfunctions, the item which first occurred blinks. If the malfunctions occurred simultaneously, the item with the lower blink count blinks first.
- The screen display displays the results regarding all the diagnosis items listed below. The display " 0 " means that no malfunctions occurred.

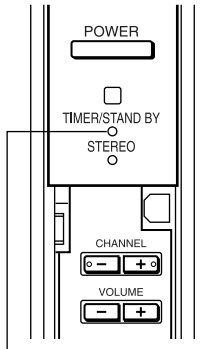
Diagnosis Item	No. of times TIMER/STANDBY indicator blinks	Probable Cause Location	Deteced symptoms
Power does not turn on	0	•Power cord is not plugged in. • Fuse is burned out (F6001) (G board)	• Power does not come on. • No power is supplied to the unit. • AC power supply is faulty.
+B overcurrent (OCP) (See Note 1)	2 times	• H. OUT (Q8024) is shorted. (D board) • +B PWM (Q8035, 8038) is shorted. (D board)	• Power does not come on. • Load on power line is shorted.
+B overvoltage (OVP)	3 times	• IC501 is faulty (G board) • IC5002 is faulty (G board)	• Has entered standby mode.
Vertical deflection stopped	4 times	• +- 15V is not supplied. (D board) • IC8003 is faulty. (A board)	• Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
White balance failure (Not balanced)	5 times	• Video out (IC7101, 7201, 7301) is faulty. (CR, CG, CB board) •CRT drive (IC309) is faulty. (A board) •G2 is improperly adjusted. (See Note 2)	• No raster is generated. • CRT cathode current detection reference pulse output is small.
LOW B OCP/OVP (Overcurrent/over voltage) (See Note 3)	6 times	• +5 line is overloaded. (A, B boards) • +5 line is shorted. (A, B boards)	• No picture • No picture
Horizontal deflection stopped	7 times	• Q8035, 8038 is shorted. (D board)	
High voltage error	8 times	• T8005 is faulty. (D board)	
Audio error	9 times	• +- 19V line is shorted. (A, B boards) • IC708 is faulty. (A board) • PS701 or PS702 is opened. (A board)	• No sound

Note1: If a +B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously. The sympton that is diagnosed first by the microcontroller is displayed on screen.
Note 2: Refer to Screen (G2) Adjustment in Section 3-1, 2 of this manual.
Note 3: If TIMER/STANDBY indicator blinks six (6) times, unplug the unit and wait 10 minutes before performing the adjustment.

3. Blinking count display of TIMER/STAND BY indicator

* One blink is not used for self-diagnosis.

< FRONT PANEL >

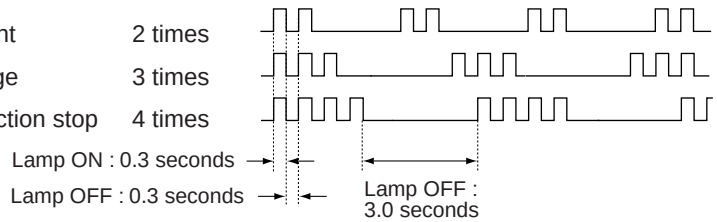


TIMER/STAND BY indicator

•EXAMPLE

<Diagnosis Items> <Number of Blinks>

- +B overcurrent 2 times
- +B overvoltage 3 times
- Vertical deflection stop 4 times



Release of TIMER/STAND BY indicator blinking.

- The TIMER/STAND BY indicator blinking display is released by turning OFF the power switch on the TV main unit or removing the plug from the power.

4. Self-diagnosis screen displays

- In cases of malfunctions where it is not possible to determine the symptom such as when the power goes off occasionally or when the screen disappears occasionally, there is a screen display on whether the malfunction occurred or not in the past (and whether the detection circuit operated or not) in order to allow confirmation.

<Screen Display Method>

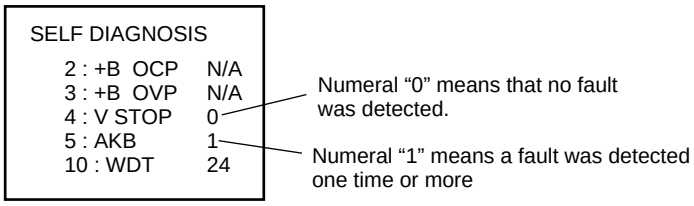
- Quickly press the remote command button in the following order from the standby state.

DISPLAY ➡ Channel 5 ➡ VOL – ➡ POWER

⇧

Be aware that this differs from the method of entering the service mode (volume +).

Self-diagnosis screen display


SELF DIAGNOSIS
2 : +B OCP N/A
3 : +B OVP N/A
4 : V STOP 0
5 : AKB 1
10 : WDT 24
Numeral “0” means that no fault was detected.
Numeral “1” means a fault was detected one time or more

5. Self-Diagnosis Screen Display

- The results display is not automatically cleared. In case of repairs and after repairs, check the self-diagnosis screen and be sure to return the results display to “ 0 ”.
- If the results display is not returned to “ 0 ” it will not be possible to judge a new malfunction after completing repairs.

<Method of Clearing Results Display>

1. Power off (Set to the standby mode)
2. DISPLAY ➡ Channel 5 ➡ VOL + ➡ POWER (Service Mode)
3. Channel 8 ➡ ENTER (Test reset = Factory preset condition)

<Method of Ending Self Diagnosis Screen>

- When ending the self-diagnosis screen completely, turn the power switch OFF on the remote commander or the main unit.

6. Self-diagnosis function operation

OCP Low B and +B line detect DET SHORT, and shut-down POWER ON RELAY.
Reset by turning power on/off.
In case of +B is loaded approx. 1.5A or more, microcomputer detects it via IC5005

OVP In case of +B becomes approx. 150V or more, POWER ON RELAY shuts down and microcomputer detects it via IC5005.
Reset by turning power on/off just the same as OCP.

Low B Occurs when set +5V is out

V Stop In case of V Drive disappeared, Q8001 detecs it and shut-down POWER ON RELAY. Microcomputer detects it and makes LED blinking.

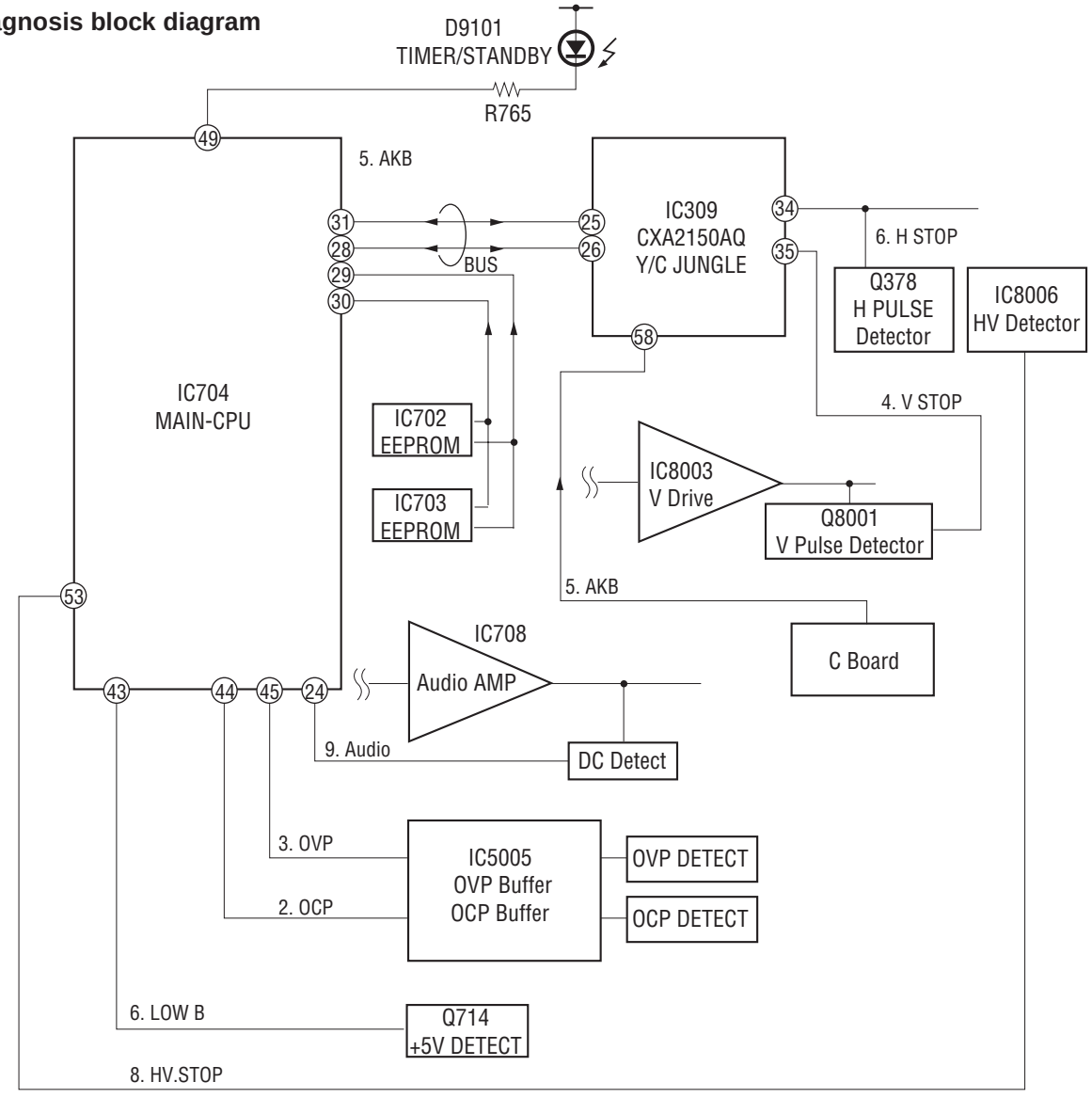
AKB IK detection. Makes LED blinking in case of microcomputer doesn't detect IK returns of IC309 (CXA2150AQ) 20 seconds or more.

H Stop In case of H DRIVE is disappeared, Q378 detects it and shut-down POWER ON RELAY shuts down.
Microcomputer receives H Stop data from Q378 and makes LED blinking.

HV Stop In case of HV becomes 33KV or more. IC8006 detects it and shut-down
POWER ON RELAY. Microcomputer makes LED blinking.

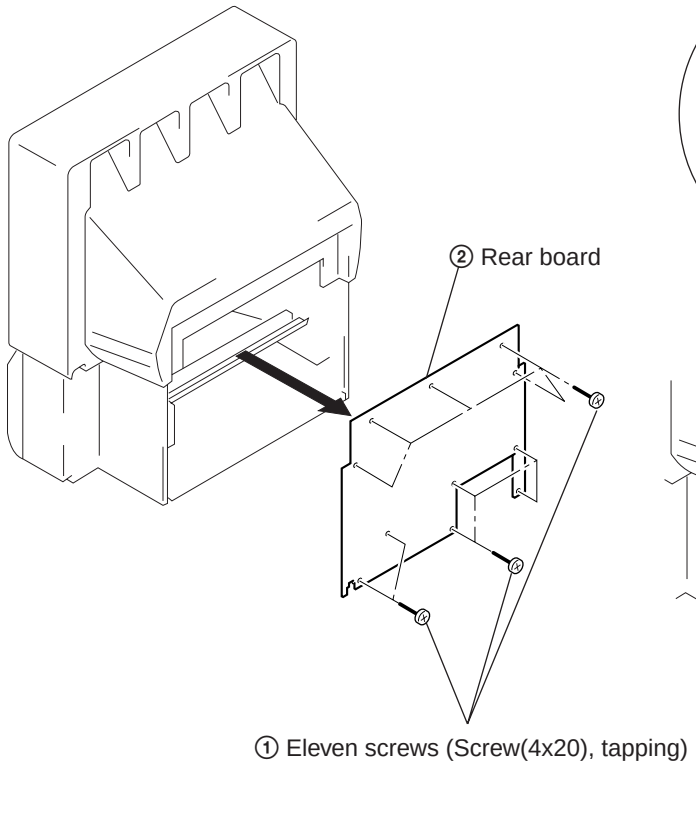
Audio In case of DC component overlaps the output of Audio Amp., POWER ON RELAY shuts down.
Microcomputer detects it and makes LED blinking.

Self-diagnosis block diagram

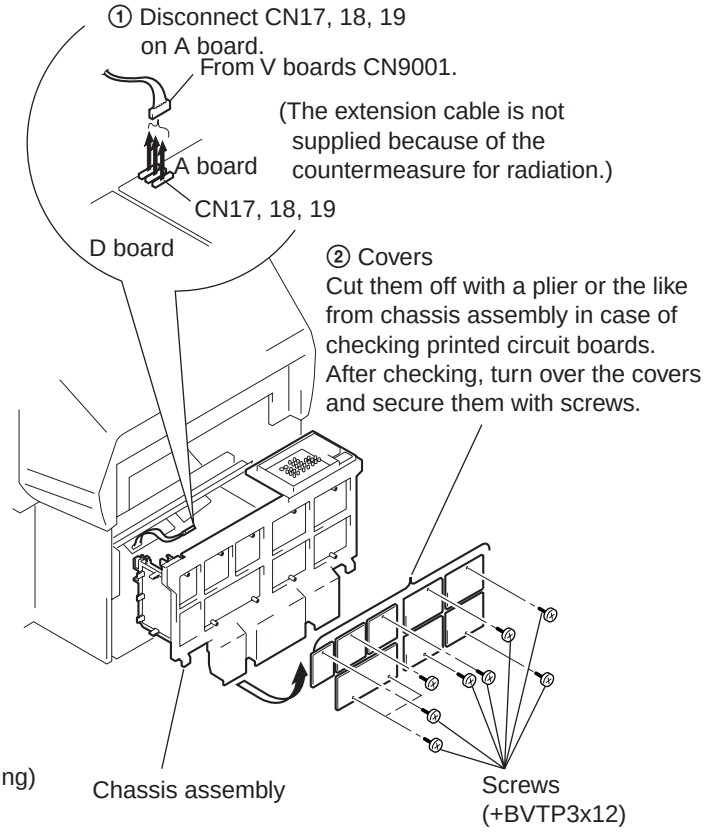


SECTION 2
DISASSEMBLY

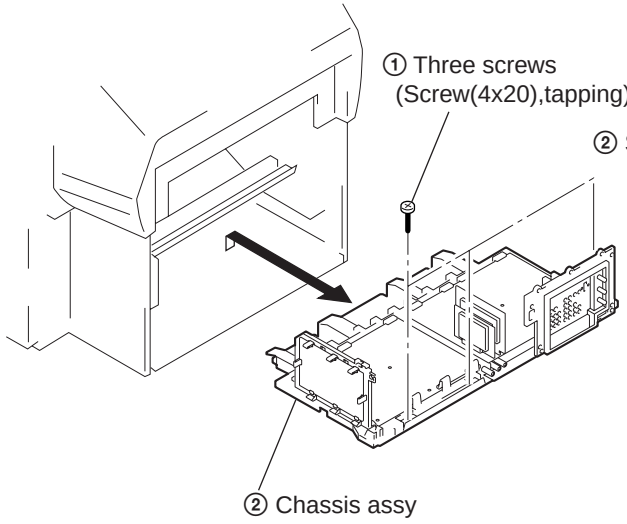
2-1. REAR BOARD REMOVAL



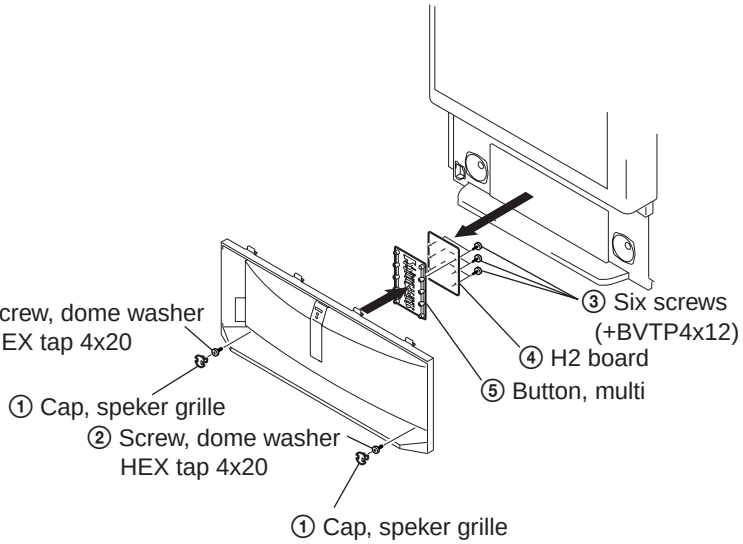
2-3. SERVICE POSITION



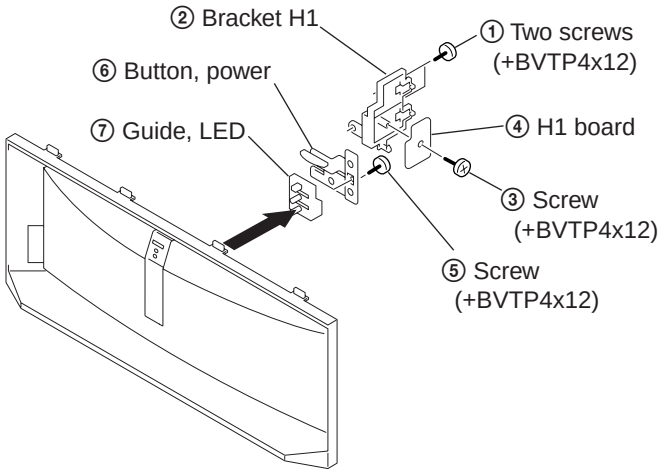
2-2. CHASSIS ASSY REMOVAL



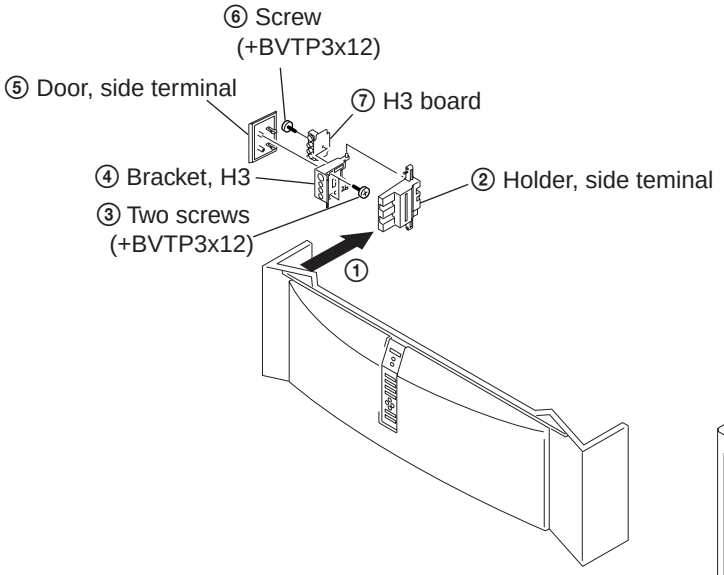
2-4. H2 BOARD REMOVAL



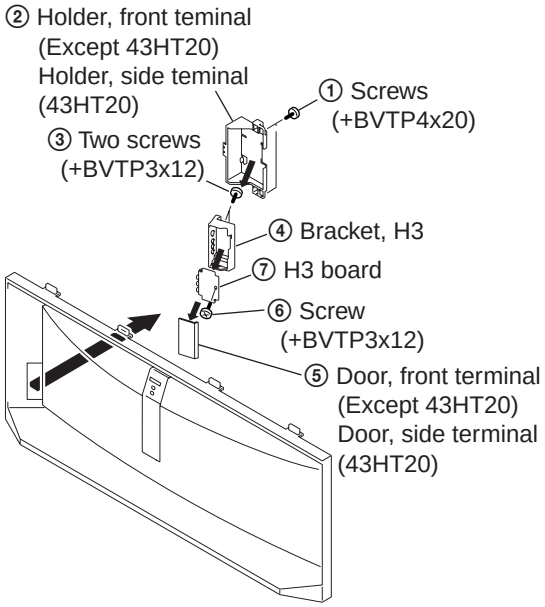
2-5. H1 BOARD REMOVAL



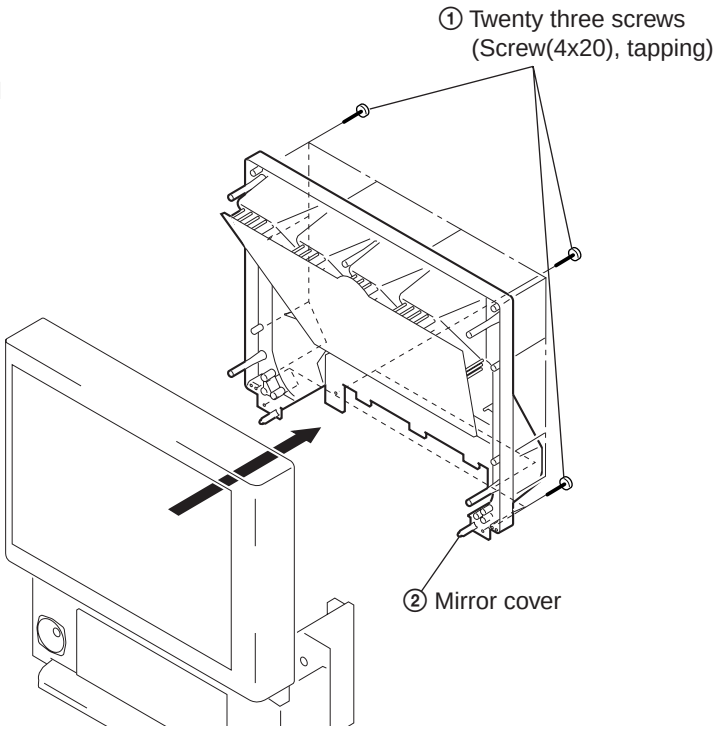
2-6. H3 BOARD REMOVAL (KP-43HT20)



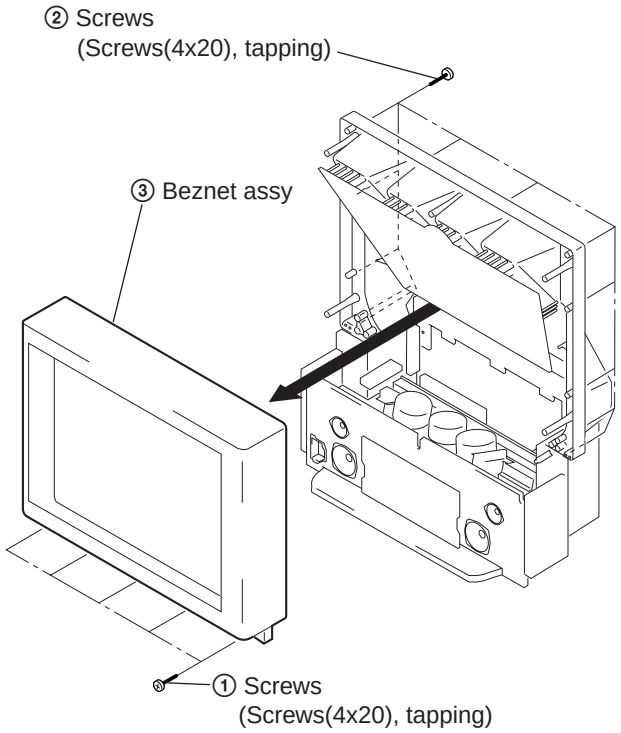
2-7. H3 BOARD REMOVAL (KP-53HS20/53HS30/61HS20/61HS30)



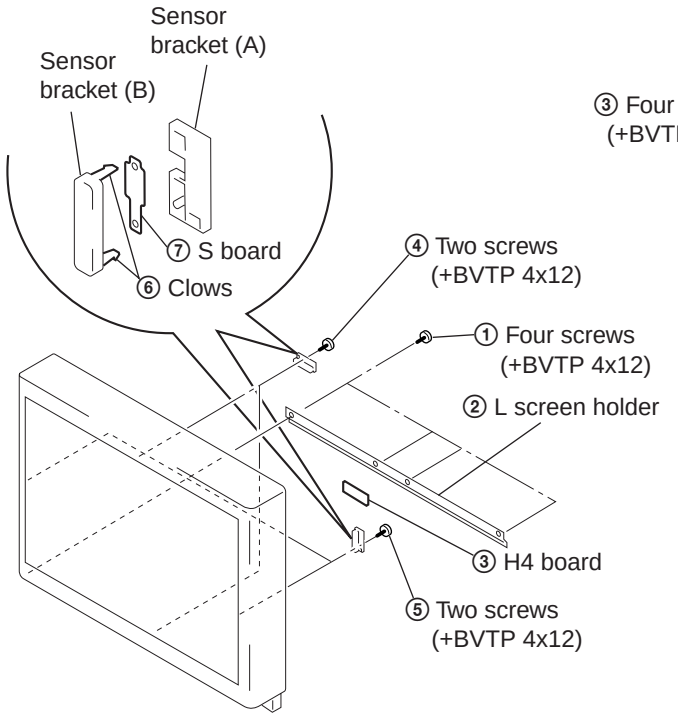
2-8. MIRROR COVER REMOVAL



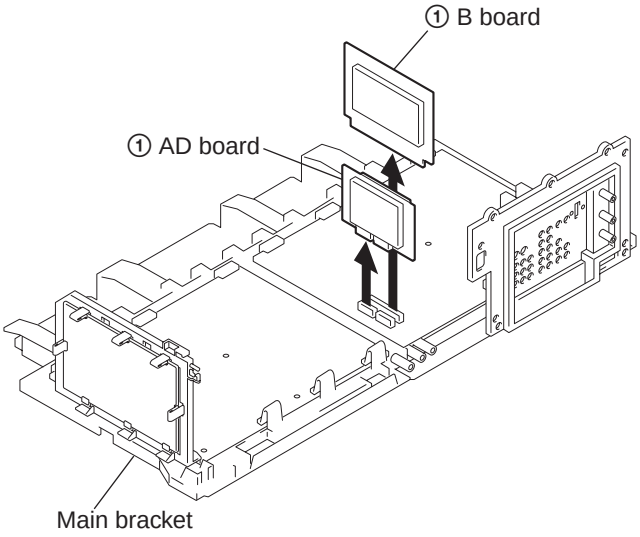
2-9. BEZNET ASSY REMOVAL



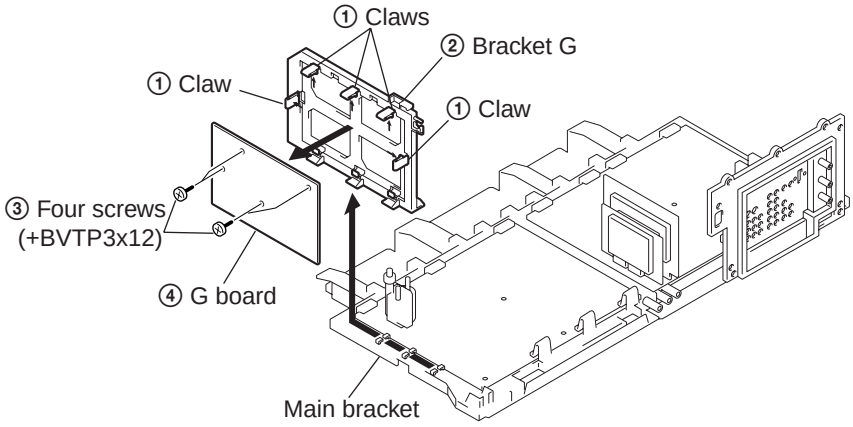
2-10. H4 BOARD AND S BOARD REMOVAL



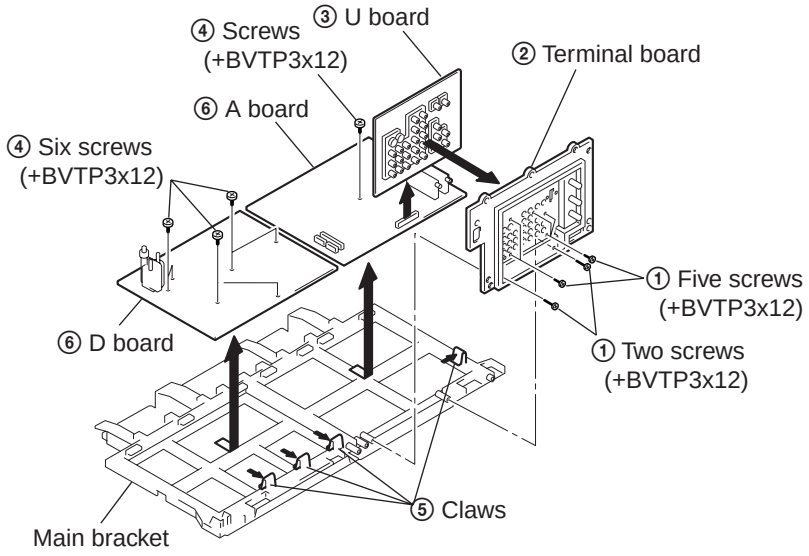
2-11. AD BOARD AND B BOARD REMOVAL



2-12. G BOARD REMOVAL

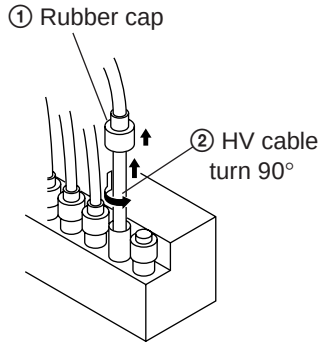


2-13. A BOARD, D BOARD AND U BOARD REMOVAL

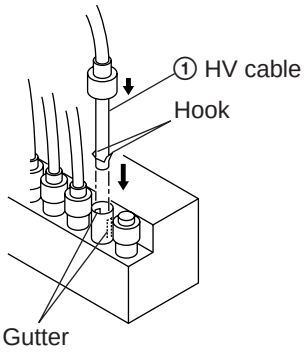


2-15-. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL

(1) Removal

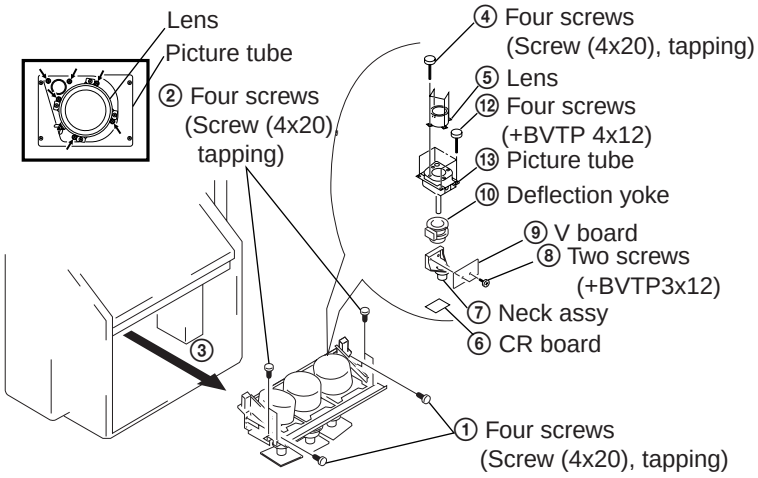


(2) Installation



2-14. PICTURE TUBE REMOVAL

CAUTION: Removing the arrow-marked screws is strictly prohibited.
If removed, it may cause liquid spill.

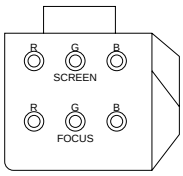


SECTION 3

SET-UP ADJUSTMENTS

3-1. SCREEN VOLTAGE ADJUSTMENT (COARSE ADJUSTMENT)

1. Receive the Monoscope signal.
2. Set 50% BRIGHTNESS and minimum PICTURE.
3. Turn the red VR on the FOCUS block all the way to the left and then gradually turn it to the right until the point where you can see the retrace line.
4. Next gradually turn it to the left to the position where the retrace line disappears.



FOCUS block

Fig. 3-1

3-2. SCREEN (G2) ADJUSTMENT (FINE ADJUSTMENT)

Fine Mode is recommended to set screen controls to their optimal condition. It is necessary to build the simple jig, illustrated below, using 3-watt resistors. Please note, that if the proper voltage is not obtained with their listed values, resistors, then please increase or decrease one of the values in the resistor network to obtain the correct voltage.

1. Select VIDEO1 mode without signals.
2. Connect G2 JIG.
3. SW on JIG.
4. Connect an oscilloscope to the TP7101(KR), TP7202(KG) and TP7301(KB) of CR board, CG board and CB board.
5. Adjust R, G and B screen voltage to 170 ± 0.5V with screen VR on the Focus block.

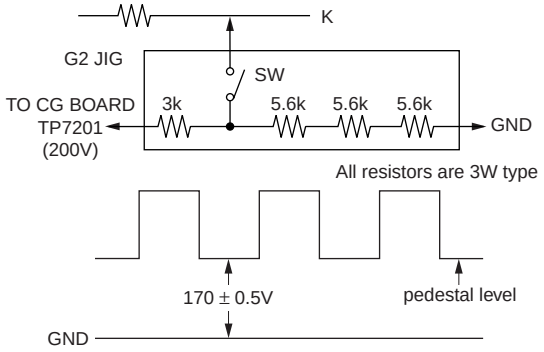


Fig. 3-2

3-3. DEFLECTION YOKE TILT ADJUSTMENT

1. Connect the color bar generator monoscope pattern to Video 1 input.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Loosen the deflection yoke set screw and align the tilt of the Deflection Yoke so that the bars at the center of the monoscope pattern are horizontal.
4. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT.
5. The tilt of the deflection yoke for red is aligned in the mode Cover the both green and blue picture lenses with the lens caps and the tilt of the deflection yoke for blue is aligned with in the mode Cover the both green and red picture lenses with the lens caps is aligned the same as was done for green.

Note: Instead of items 2 and 5, you can cut off the unnecessary color beams by controlling the service mode CXA2150P-2 0 RGBS.

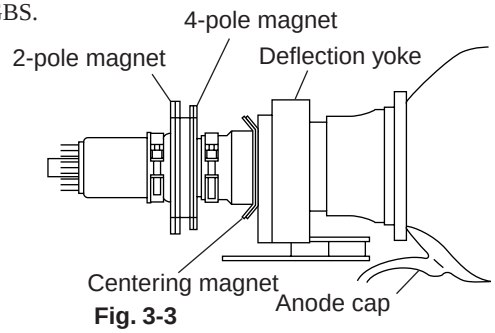


Fig. 3-3

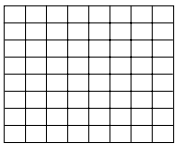
3-4. FOCUS LENS ADJUSTMENT

In this adjustment, use the remote commander in the service mode.

For details of the usage of the service mode and the remote commander, please refer the item 3-9. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER.

1. Loosen the lens screw.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Turn the green lens to adjust to the optimum focus point with the crosshatch signal.
4. Tighten the lens screw.
5. Cover the both green and blue picture lenses with the lens caps to show only the red color.
6. Adjust red CRT lens just the same as green.
7. Cover the both green and red picture lenses with the lens caps to show only the blue color.
8. Adjust blue CRT lens just the same as green.
9. After adjusting the items 3-5. Focus VR Adjustment, 3-6. 2-Pole Magnet Adjustment and 3-7. 4-Pole Magnet Adjustment, adjust again to the optimum focus point.

*: Every time you press 6, the test signal changes to “crosshatch+video signal” - “crossbatch+borderline(black)” - “crosshach(black)” - “dots(black)” - off.



Test signal

Fig. 3-4

Note: Instead of items 2, 5 and 7, you can cut off the unnecessary color beams by controlling the service mode CXA2150P-2 0 RGBS.

3-5. FOCUS VR ADJUSTMENT

1. Set generator to crosshatch.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Turn the green focus VR on the focus block to adjust to the optimum focus point with the crosshatch signal.
4. Cover the both green and blue picture lenses with the lens caps to show only the red color.
5. Turn the red focus VR on the focus block to adjust to the optimum focus point with the crosshatch signal.
6. Cover the both green and red picture lenses with the lens caps to show only the blue color.
7. Turn the blue focus VR on the focus block to adjust to the optimum focus point with the crosshatch signal.
8. After adjusting the items 3-4. Focus Lens Adjustment, 3-6. 2-Pole Magnet Adjustment and 3-7. 4-Pole Magnet Adjustment, adjust again to the optimum focus point.

Note: Instead of items 2, 4 and 6, you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

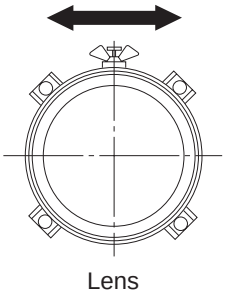


Fig. 3-5

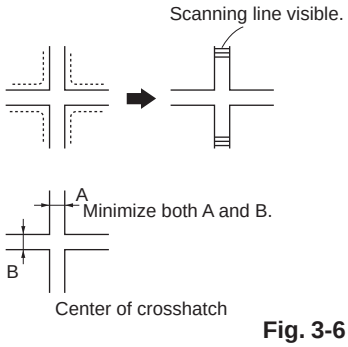


Fig. 3-6

3-6. 2-POLE MAGNET ADJUSTMENT

1. Set the picture mode to“Pro” and picture to MAX.
2. Receive the Dot signal.
3. Cover the both red and blue picture lenses with the lens caps to show only the green color.
4. Turn the green focus VR on the focus block to the left and set to overfocus to enlarge the spot.
5. Adjust 2-pole magnet so that the bright spot should be centered.
6. Align the green focus VR and set for just (precise) focus.
7. Perform the same alignment for red and blue.

Note: Instead of item 2 you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

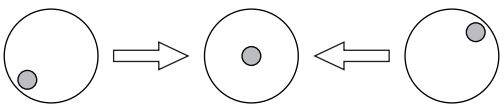


Fig. 3-7

3-7. CENTERING MAGNET ADJUSTMENT

1. Set the picture mode to “Pro”.
2. Receive the monoscope signal.
3. Cover the both red and blue picture lenses with the lens caps to show only the green color.
4. Adjust the green centering magnet to put the center of the monoscope signal to the center of the screen.
5. Adjust the red centering magnet in the same way.
6. Adjust the blue centering magnet in the same way.

Note: Instead of item 2 you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

3-8. 4-POLE MAGNET ADJUSTMENT

1. Set the picture mode to“Pro” and picture to MAX.
2. Receive the Dot signal.
3. Cover the both red and blue picture lenses with the lens caps to show only the green color.
4. Turn the green focus VR on the focus block to the right and set the spot will become smaller.
5. Adjust the 4-Pole Magnet so that the spot becomes round for green and red.
6. Adjust blue spot to an oval shape X:Y=1:1.4 ∼ 1.5.

Note: Instead of item 2 you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

Use the center dot

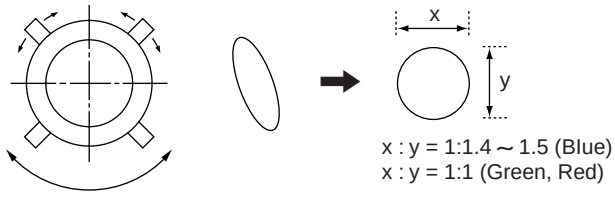


Fig. 3-8

3-9. DEFOCUS ADJUSTMENT (BLUE)

Note: Please adjust the blue dot to be slightly larger than red and green dots. This adjustment provides a more pleasing picture to the customer.

1. Select the picture mode to “Pro”.
2. Receive the Dot signal.
3. Cover the both red md green picture lenses with the lens caps to show only the blue color.
4. Turn the blue focus VR on the focus block to right to make the round dot elipical.
5. Check flare with high luminace signal, make sure flare is minimal while dot shape is elipical.
6. Set generdtor to all white signal and check uniformity.

Note: Instead of item 3 you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

3-10.ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

By using Remote Commander (RM-Y908),all circuit adjustments can be made.

NOTE : Test Equipment Required.

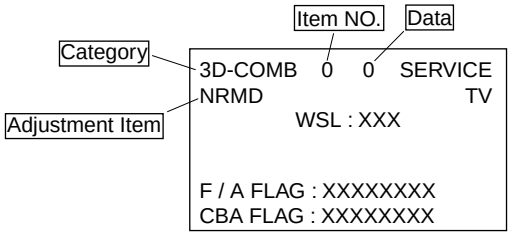
1. Pattern Generator (with component outputs)
2. Frequency counter
3. Digital multimeter
4. Audio oscillator

1. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

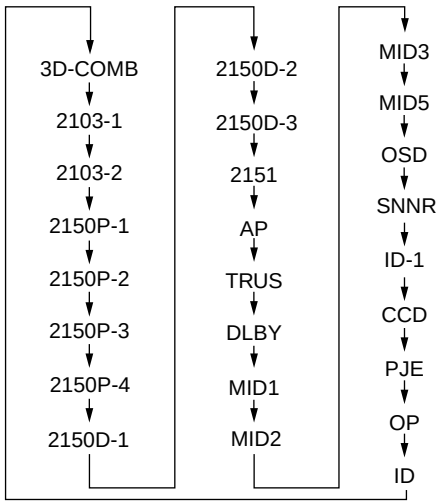
SERVICE MODE PROCEDURE

1. Standby mode. (Power off)
2. [DISPLAY] → [5] → [VOL (+)] → [TV POWER] on the Remote Commander.
   (Press each button within a second.)

SERVICE MODE ADJUSTMENT



3. The SCREEN displays the item being adjusted.
4. Press [1] or [4] on the Remote Commander to select the adjustment item.
5. Press [3] or [6] on the Remote Commander to change the data.
6. Press [2] or [5] on the Remote Commander to select the category.
   Every time you press 2(Category up), Service mode changes in the order as shown below.



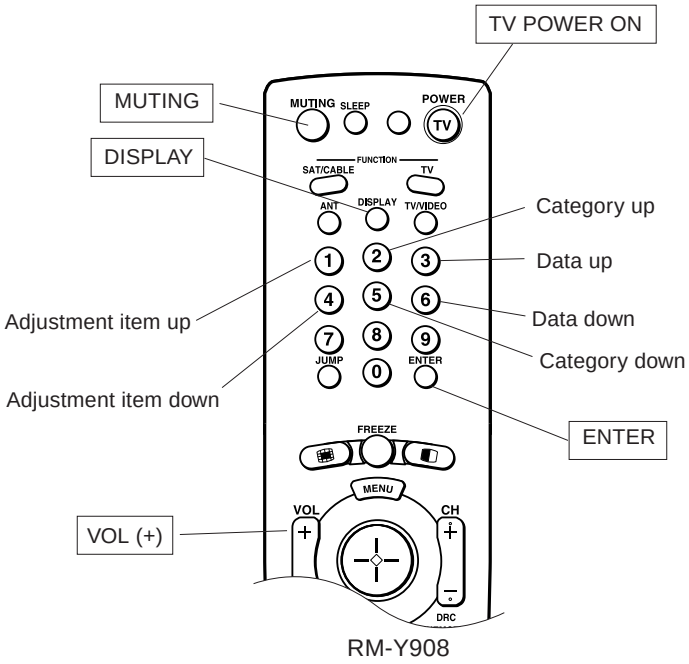
7. If you want to recover the latest values press [0] then [ENTER] to read the memory.
8. Press [MUTING] then [ENTER] to write into memory.
9. Turn power off.

Note: Press [8] then [ENTER] on the Remote Commander to initialize or turn set off and on to exit.

2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, turn power off with the remote commander.
2. Turn power on and set to Service Mode.
3. Call the adjusted items again and confirm they were adjusted.

3. ADJUSTING BUTTONS AND INDICATOR



RM-Y908

Note : When the PJE mode is activated, which displays an internally generated signal, several buttons on the remote commander will have different functions than listed above. Therefore, when in the PJE mode, refer to page 26 for button functions.

4. SERVICE MODE LIST

Note: • shaded items are fixed. There is no need to change data. Others are different a little in the sets individually. Basically, there is no need to change data, too.

3D-COMB uPD64082

Reg.No	Name	FUNCTION					
			UHF/VHF & Cvideo		Svideo		Note: * shows common data.
			Standard	Non-standard	Standard	Non-standard	
0	NRMD	Operation mode setting	0	1	3	3	
1	YAPS	Y-output correction	3	*			
2	CLKS	System clock setting	1	*			
			UHF/VHF & Cvideo		Svideo		
			Standard	Non-standard	Standard	Non-standard	
3	NSDS	Selection for standard/non-standard signal processing	0	0	0	0	
4	MSS	Selection for inter-frame/inter-line processing	0	*			
5	KILS	Killer processing selection	1	*			
			UHF/VHF	CV/SV			
6	CDL	C-signal phase with respect to the Y-signal	3	3			
			NRMD=0	NRMD=1	NRMD=2	NRMD=3	
7	DYCO	DY detection coring level (Y motion detection coring)	2	2	2	2	
8	DYGA	DY detection gain (Y motion detection gain)	10	10	10	10	
9	DCCO	DC detection coring level (C motion detection coring)	5	5	5	5	
10	DCGA	DC detection gain (C motion detection gain)	5	5	5	5	
11	YNRL	Frame recursive YNR nonlinear filter limit level	1	*			
12	CNRL	Frame recursive CNR nonlinear filter limit level	1	*			
			UHF/VHF	Video1-4	Video5&6		
13	VTRH	Hysteresis for Hsysnc non-standard signal detection	1	1	1		
14	VTRR	Sensitivity for Hsysnc non-standard signal detection	1	1	1		
15	LDSR	Sensitivity for frame non-standard signal detection	2	2	2		
			VM=off	VM=Low	VM=Mid	VM=High	
16	VAPG	V-aperture compensation gain	0	0	0	0	
17	VAPI	V-aperture compensation convergence point	0	0	0	0	
				SNNR=0	SNNR=1	SNNR=2	SNNR=3
18	YPET	Y peaking filter (BPF) center frequency	3	0	0	0	0
19	YPFG	Y peaking filter (BPF) gain	9	0	1	2	3
			SNNR=0	SNNR=1	SNNR=2	SNNR=3	
20	YHCO	Y output high frequency component coring	0	1	1	1	Note: YHCO & YHCG are defined directly by SNNR data.
21	YHCG	Y output high frequency component coring gain	1	1	1	1	
22	HSSL	Hsync slice level	12	*			
23	VSSL	Vsync slice level	8	*			
24	ADCL	ADC clock delay	3	*			
			NRMD=0	NRMD=1	NRMD=2	NRMD=3	
25	D2GA	Moving detection gain	4	4	4	4	
26	KILR	Killer detection reference	3	*			

3D-COMB uPD64082

Reg.No	Name	FUNCTION								
27	OP	Option: Selection of comb filter&recursive n.reduction types.	1	*						
			UHF/VHF	CVideo1	SVideo1	CVideo2	SVideo2	CVideo3	SVideo3	CVideo4
28	NR1	Noise reduction on/off	0	0	1	0	1	0	1	0
29	NR2	SNNR control on/off	0	*						
30	WSL	Noise level detection level data	0-255	Read Data						
31	HPLL	H-PLL filter	1	*						
32	BPLL	Burst PLL filter	1	*						
33	FSCF	Burst extraction gain	0	*						
34	PLLF	PLL loop gain	1	*						
			UHF/VHF	Video1-4	Video5&6					
35	CC3N	Selection if a line-comb filter C separation filter characteristic	0	0	0					
36	HDP	Fine adjustment of the system H-phase	5	*						
37	BGPS	Internal	4	*						
38	BGPW		10	*						
39	TEST	Test bit (0:Normal mode 1:Test mode) * forbidden setting	0	*						
40	WSC	Amount of noise detection coring	1	*						
			UHF/VHF & Video1-4		Video5&6					
41	LIND	DRC-M line-doubling setting for non-standard signals UHF/VHF&Video1-4	0		2					
42	PFGO	(YPFG offset at GR on) * Not used	3	*						
			SNNR=0	SNNR=1	SNNR=2	SNNR=3				
#16	VAPG		0	0	0	0				

NTSC-YCT (Chroma Decoder) CXA2103-1 (Main)

Reg.No	Name	FUNCTION									
			UV & Video	YCbCr-480i							
			P&P Left (M)-DRC	P&P Left (M)-DRC							
0	YLEV	Y-Out gain	34	40							
1	CLEV	Cb&Cr-Out gain	27	46							
			UHF/VHF	Video							
2	SCON	Sub contrast	ADJ (7)	ADJ (7)							
3	SCOL	Sub color	ADJ (7)	ADJ (7)							
4	SHUE	Sub hue	ADJ (7)	ADJ (7)							
5	YDLY	Y/C delay time	0	0							
			UHF/VHF	Cvideo	Svideo	YCbCr480i	SNNR=0	SNNR=1	SNNR=2	SNNR=3	
6	SHAP	Sharpness	6	4	4	4	0	1	2	3	
7	SHF0	Sharpness f0 selector	3	3	3	3					
8	PREO	Sharpness pre/over-shoot ratio	3	0	0	0					
9	BPF0	Chroma band filter f0 setting	3	0	0	0					
10	BPFQ	Chroma band filter Q setting	0	3	3	3					
11	BPSW	Chroma bnad filter on/off	1	0	0	0					
12	TRAP	Y block chroma trap filter on/off	0	0	0	0					
13	LPF	Y Cb Cr-Output LPF on/off	1	1	1	1					
			UHF/VHF	Video	YCbCr						
14	AFCG	AFC Loop gain (PLL between Hsync & HVCO)	1	0	0						
15	CDMD	V countdown system mode selector	3	3	3						
16	SSMD	H&Vsync slide level setting	0	0	0						
17	HMSK	Masking of macrovision signal on/off	1	1	1						
18	HALI	H automatic adjustment on/off	0	0	0						
19	PPHA	H TIM phase adjustment video	7	7	7						
			UV & Video	YCbCr-480i							
			P&P Left (M)-DRC	P&P Left (M)-DRC							
20	CBOF		34	34							
21	CROF		32	32							
				Single Picture	P&P & Favorite				P&P & Favorite			
					UBLK-0	UBLK-1	UBLK-2	UBLK-3	UBLK-4	UBLK-5	UBLK-6	UBLK-7
22	ATPD	Auto-pedestal Inflection Point P&P & Favorite UBLK=0		0	1	1	2	1	1	2	3	2
23	DCTR	DC Transmission Ratio P&P & Favorite UBLK=0		0	2	1	1	2	2	2	2	3

NTSC-YCT (Chroma Decoder) CXA2103-2 (Sub)

Reg.No	Name	FUNCTION									
			UV & Video								
			P&P Right (S)	P&P Right (S)-DRC							
0	YLEV	Y-Out gain	34	38							
1	CLEV	Cb&Cr-Out gain	27	31							
			UHF/VHF	Video							
2	SCON	Sub contrast	ADJ (7)	ADJ (7)							
3	SCOL	Sub color	ADJ (7)	ADJ (7)							
4	SHUE	Sub hue	ADJ (7)	ADJ (7)							
5	YDLY	Y/C delay time	0	0							
			UHF/VHF	Cvideo	Svideo		SNNR=0	SNNR=1	SNNR=2	SNNR=3	
6	SHAP	Sharpness	4	4	4		0	1	2	3	
7	SHF0	Sharpness f0 selector	3	3	3						
8	PREO	Sharpness pre/over-shoot ratio	3	0	0						
9	BPF0	Chroma band filter f0 setting	0	0	0						
10	BPFQ	Chroma band filter Q setting	0	0	0						
11	BPSW	Chroma bnad filter on/off	0	0	0						
12	TRAP	Y block chroma trap filter on/off	0	0	0						
13	LPF	Y Cb Cr-Output LPF on/off	0	0	0						
			UHF/VHF	Video							
14	AFCG	AFC Loop gain (PLL between Hsync & HVCO)	1	0							
15	CDMD	V countdown system mode selector	3	3							
16	SSMD	H&Vsync slide level setting	0	0							
17	HMSK	Masking of macrovision signal on/off	1	1							
18	HALI	H automatic adjustment on/off	0	0							
19	PPHA	H TIM phase adjustment video	7	7							
			UV & Video	YCbCr-480i							
			P&P Right (S)-DRC	P&P Right (S)-DRC							
20	CBOF		32	32							
21	CROF		31	31							
				Single Picture	P&P & Favorite				P&P & Favorite			
					UBLK-0	UBLK-1	UBLK-2	UBLK-3	UBLK-4	UBLK-5	UBLK-6	UBLK-7
22	ATPD	Auto-pedestal Inflection Point P&P & Favorite UBLK=0		0	1	1	2	1	1	2	3	2
23	DCTR	DC Transmission Ratio P&P & Favorite UBLK=0		0	2	1	1	2	2	2	2	3

Note: Reg.No 14 to 19 are the same data as CXA2103-1. (the same NVM address)

Note: Reg.No 22 and 23 are the same data as CXA2103-1. (the same NVM address)

CRT Driver CXA2150P-1 (Picture Controls:P1)

Reg.No & Name		FUNCTION							
			UHF/VHF	CV	SV	YCbCr480i	YCbCr480P	YCbCr1080i	P&P
0	SBOT	Offset for SBRT	0	0	0	7	7	7	7
1	YOF	Y OFFSET: DC-offset for Y signal	0	0	0	0	0	0	0
2	CBOF	CB OFFSET: DC-offset for Cb signal	35	35	35	37	40	31	35
3	CROF	CR OFFSET: DC-offset for Cr signal	36	36	36	39	41	31	36
4	SBRT	SUB BRT: Sub Bright	ADJ (24)	*					
5	RDRV	R DRIVE: R output drive	ADJ (31)	*					
6	GDRV	G DRIVE: G output drive	41	*					
7	BDRV	B DRIVE: B output drive	ADJ (31)	*					
8	RCUT	R CUTOFF: R output cutoff	ADJ (31)	*					
9	GCUT	G CUTOFF: G output cutoff	31	*					
10	BCUT	B CUTOFF: B output cutoff	ADJ (31)	*					
			Vivid (Cool)	Std (Neutral)	Movie (Warm)	Pro			
11	WBSW	WB SW	0 (no memory)	0 (no memory)	0 (no memory)	0 (no memory)			
12	SBOF	Offset for SBRT	63	63 (no memory)	63	63 (no memory)			
13	RDOF	Offset for RDRV	63	63 (no memory)	66	63 (no memory)			
14	GDOF	Offset for GDRV	63	63 (no memory)	63	63 (no memory)			
15	BDOF	Offset for BDRV	68	63 (no memory)	56	63 (no memory)			
16	RCOF	Offset for RCUT	63	63 (no memory)	64	63 (no memory)			
17	GCOF	Offset for GCUT	63	63 (no memory)	63	63 (no memory)			
18	BCOF	Offset for BCUT	64	63 (no memory)	63	63 (no memory)			

CRT Driver CXA2150P-2 (Picture Controls:P2)

Reg.No & Name		FUNCTION							
0	ALBK	PIC ON	1	*					
1	RGBS	R ON/G ON/B ON : R/G/B outputs on/off	7	*					
2	BLKB	BLK BTM: RGB output bottom limit level (Black level)	3	*					
3	LIML	PLIMIT LEV: Threshold level for excessively high inputs	0	*					
4	PABL	P ABL: DC-level in RGB output detection for PEAK ABL	15	*					
5	SABL	S ABL: S ABL gain	0	*					
6	AGNG	AGING W/AGING B: AGING W/AGING B modes on/off	0	*					
7	AKBO	AKBOFF: Automatic/Manual = Cut off setting	0	*					
			UHF/VHF V1 _ 4	YCbCr480i	YCbCr480P	YCbCr1080i	P&P		
8	SYPH	SYNC PHASE: Hsync delay with respect to Video (100%H-period)	0	0	0	0	0		
9	CLPH	CLP PHASE: Internal clamp pulse phase (100%H-period)	3	3	3	3	3		
10	CLGA	CLP GATE: Switch for the gated internal clamp pulse with Hsync	0	0	0	0	0		
11	JAXS	JAXIS: color axis switch	0	*					
12	BLKO	BLKO: Blanking switch	0	*					

CRT Driver CXA2150P-3 (Picture Controls:P3) (Part1)

Reg.No & Name		FUNCTION	Vivid						
			UHF/VHF	CV	SV	YCbCr480i	YCbCr480P	YCbCr1080i	P&P
0	SYSM	SYSTEM: Signal bandwidth setting	1	1	1	1	1	2	2
1	UVML	VM LEV: VM OUT level	3	3	3	2	2	3	3
2	VMMO	System Micro pin#40	1	1	1	1	1	1	0
3	VMCR	VM COR: VM OUT coring level	0	0	0	1	1	3	3
4	VMLM	VM LMT: VM OUT limit level	3	3	3	3	3	3	3
5	VMF0	VM F0: VM f0	2	2	2	2	2	2	2
6	VMDL	VM DLY:VM OUT phase (defined by phase difference from R OUT)	2	2	2	2	2	1	1
7	SHOF	Offset for USHP=SHOF x 4	0	2	2	3	3	3	3
8	SHF0	SHP F0: Sharpness circuit f0	1	1	1	1	1	0	1
9	PROV	PRE/OVER: Y signal pre/over-shoot ratio	1	0	0	0	2	0	0
10	F1LV	SHP F1: Sharpness for higher f0 (4.2/5.6Mhz @NORMAL mode)	3	3	3	0	1	3	3
11	CDSP	SHP CD: Sharpness in part of high color saturation	3	3	3	3	3	3	3
12	LTLV	LTI LEV: Luminance transient improvement (LTI)	3	3	3	3	3	3	3
13	LTMD	LTI MODE: LTI mode setting	0	0	0	0	0	1	1
14	CTLV	CTI LEV: Chrominance transient improvement (CTI)	0	0	0	0	0	0	0
15	CTMD	CTI MODE: CTI mode setting	0	0	0	0	0	0	0
16	UBOF	Offset for UBRT (Picture clarity adjustment)	0	0	0	13	13	9	9
17	UCOF	Offset for UCOL=UCOF x 2 (Picutre clarity adjustment)	3	3	3	3	3	0	2
18	UHOF	Offset for UHUE (Picutre clarity adjustment)	0	0	0	0	0	0	0
19	MIDE	MID enhancement setting	3	15	15	7	11		

CRT Driver CXA2150P-3 (Picture Controls:P3) (Part2)

Reg.No & Name		FUNCTION	Standard							Movie							Pro						
			UHF VHF	CV	SV	YCbCr 480i	YCbCr 480P	YCbCr 1080i	P&P	UHF VHF	CV	SV	YCbCr 480i	YCbCr 480P	YCbCr 1080i	P&P	UHF VHF	CV	SV	YCbCr 480i	YCbCr 480P	YCbCr 1080i	P&P
#0	SYSM		1	1	1	1	1	2	2	1	1	1	1	1	2	2	1	1	1	1	1	2	2
#1	UVML		2	2	2	2	2	3	3	1	1	1	1	1	1	1	0	0	0	0	0	0	0
#2	VMMO		1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#3	VMCR		0	0	0	1	1	3	3	1	1	1	1	1	3	3	3	3	3	3	3	3	3
#4	VMLM		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
#5	VMF0		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
#6	VMDL		2	2	2	2	2	1	1	2	2	2	2	2	1	1	2	2	2	2	2	1	1
#7	SHOF		1	1	1	2	2	3	3	1	1	1	1	1	1	1	0	0	0	0	0	0	0
#8	SHF0		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
#9	PROV		1	0	0	0	0	0	0	3	3	3	3	2	2	3	3	3	3	3	2	2	3
#10	F1LV		3	3	3	0	1	3	3	3	3	3	1	2	3	3	3	3	3	1	2	3	3
#11	CDSP		3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#12	LTLV		2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#13	LTMD		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
#14	CTLV		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#15	CTMD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#16	UBOF		15	15	15	12	12	4	4	7	7	7	7	7	7	7	7	7	7	7	7	7	7
#17	UCOF		1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#18	UHOF		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#19	MIDE		2	14	14	6	10	–	–	1	13	13	5	9	–	–	0	12	12	4	8	–	–

CRT Driver CXA2150P-3 (Picture Controls:P3) (Part3)

Reg.No & Name		FUNCTION	SNNR=0	SNNR=1	SNNR=2	SNNR=3
#1	UVML		0	0	0	0
#3	VMCR		0	+1	+2	+3
#10	F1LV		0	-1	-2	-3
#11	CDSP		0	0	0	0
#12	LTLV		0	0	0	0
#14	CTLV		0	0	0	0
#19	MIDE		0	0	0	0

CRT Driver CXA2150P-4 (Picture Controls:P4)

Reg.No & Name		FUNCTION	Vivid	Standard	Movie	Pro				
0	UPIC	PICTURE: Picture	63	44	31	31				
1	UBRT	BRIGHT: Brightness	26	31	31	31				
2	UCOL	COLOR:	31	31	31	31				
3	UHUE	HUE:Hu	31	31	31	31				
4	USHP	SHARPNESS: Sharpness	32	40	31	31				
5	UTMP	Color Temperature (0:Warm 1:Neutral 2:Cool)	2	1	0	1				
6	UDCL	DCOL: D	2	2	0	0				
			UHF/VHF V1-4	YCbCr480i	YCbCr480P	YCbCr1080i	P&P			
7	AXIS	COL AXIS: color matrix setting	0	0	0	0	0			
			Picture Mode Vivid							
			UHF/VHF V1-4	YCbCr480i	YCbCr480P	YCbCr1080i	P&P			
8	UGAM	GAMMA/GAMMA L: RGB output GAMMA correction setting	5	4	4	5	5			
9	AGAM	GAMMA/GAMMA L (AV Pro user control) - Void Data	-							
			UGAM-0	UGAM-1	UGAM-2	UGAM-3	UGAM-4	UGAM-5	UGAM-6	UGAM-7
10	GSBO	Offset for SBRT	0	0	0	0	0	0	0	0
11	GCCO	Offset for UCOL	0	0	0	0	0	0	0	0
12	GHUO	Offset for UHUE	0	0	0	0	0	0	0	0
			Picture Mode Vivid							
			UHF/VHF V1-4	YCbCr480i	YCbCr480P	YCbCr1080i	P&P			
13	UBLK	Item#15-18 pack F1 data controls	7	6	6	6	4			
14	ABLK	(Av Pro user control) - Void Data	–							
			UBLK0	UBLK1	UBLK2	UBLK3	UBLK4	UBLK5	UBLK6	UBLK7
15	DCTR	DC TRAN: Y signal DC transmission	1	1	1	2	3	3	3	3
16	DPIC	DPIC LEV: Y signal AUTO PEDESTAL level	0	1	2	1	1	2	1	2
17	DSBO	Offset for SBRT	7	7	7	7	7	7	7	7
18	ABLM	ABL MODE: ABL mode	0	0	0	0	0	0	1	1
			Full	Vcomp 1 & 2						
19	ABLT	ABL TH: ABL current detection Vth contro	0	15						
20	EPOF	Offset for UPIC=EPOF x (UPIC/63) (for power save) - Void Data								
21	SPOF	Offset for UPIC=SPOF x (UPIC/64) - Data Not used	15	<< Only available at Vcomp 1 & 2.						
			UHF/VHF V1-4	YCbCr480i	YCbCr480P	YCbCr1080i	P&P			
22	SCON	SUB CONTRAST: SUB PICTURE	12	9	9	8	8			
23	CLOF	Offset for UCOL	9	9	9	9	9			
24	HUOF	Offset for UHUE	5	5	5	5	5			
25	IDSW	Not used								
			Full	Vcomp1	Vcomp2					
26	DATA	Display of vertical compression modes. Can not change this data.	0	1	2					

Note: Full : 4:3

Vcomp1 : 480p/960i, 16:9

Vcomp2 : 1080i, 16:9

CRT Driver CXA2150P-4 (Picture Controls:P4)

Reg.No & Name		FUNCTION	SNNR =0	SNNR =1	SNNR =2	SNNR =3
#4	USHP		0	1	3	4

			Picture Mode : Standard					Picture Mode : Movie					Picture Mode : Pro				
			UHF VHF V1 _ 4	YCbCr 480i	YCbCr 480P	YCbCr 1080i	P&P	UHF VHF V1 _ 4	YCbCr 480i	YCbCr 480P	YCbCr 1080i	P&P	UHF VHF V1 _ 4	YCbCr 480i	YCbCr 480P	YCbCr 1080i	P&P
#8	UGAM		2	2	2	1	1	0	0	0	0	0	0	0	0	0	0

			Picture Mode : Standard					Picture Mode : Movie					Picture Mode : Pro				
			UHF VHF V1 _ 4	YCbCr 480i	YCbCr 480P	YCbCr 1080i	P&P	UHF VHF V1 _ 4	YCbCr 480i	YCbCr 480P	YCbCr 1080i	P&P	UHF VHF V1 _ 4	YCbCr 480i	YCbCr 480P	YCbCr 1080i	P&P
#13	UBLK		5	3	3	3	3	2	0	0	0	0	2	0	0	0	0

CRT Driver CXA2150D-1 (Deflection Controls:D1)

Reg.No & Name		FUNCTION	4:3 Full	4:3 Vcomp1	4:3 Vcomp2
0	VPOS	V POSITION: Vertical position (V DRV signal DC bias)	ADJ (31)		
1	VSIZ	V SIZE: Vertical size (V DRV signal gain)	ADJ (50)		
2	VSZO	V SIZE OFFSET	0		
3	VLIN	V LINEARITY: Vertical linearity	5		
4	VSCO	S CORRECTION: Vertical S-correction	8		
5	VCEN	VSAW0 DCH/VSAW0 DCL: Vertical center adjustment	31		
6	VPIN	VSAW0 AMP: Vertical PIN adjustment	15	15	
7	NSCO	VSAW1 DC: Rotation	7		
8	HTPZ	VSAW1 AMP: Horizontal trapezoid	15		
9	ZOOM	ZOOM SW: Zoom switch	0	0	
10	APSW	ASP SW: Aspect switch	0	1	0
11	ASPT	V ASPECT: Aspect ratio	44	32	28
12	SCRL	V SCROLL: Vertical scroll	29	29	29
13	UVLN	UP VLIN: Upper vertical linearty	0	0	
14	LVLN	LO VLIN: lower vertical linearty	0	0	

CRT Driver CXA2150D-2 (Deflection Controls:D2)

Reg.No & Name		FUNCTION	Full	Vcomp1	Vcomp2
0	HCNT	HC PARA DC: Horizontal center	19	19	
1	HPOS	H POSTION: Horizontal position	25		
2	HSIZ	H SIZE: Horisontal size	ADJ (30)		
3	SLIN	MP PARA DC: Horizontal S-correction	3		
4	MPIN	MP PARA AMP: Horizontal middle pin	7		
5	PIN	PIN AMP: Horizontal pin	10		
6	PIN0		7		
7	UCP	UP CPIN: Upper corner pin	31		
8	LCP	LO CPIN: Lower corner pin	31		
9	UXCG	UP UCG: Upper extra corner pin gain	0		
10	LXCG	LO UCG: Lower extra corner pin gain	0		
11	UXCP	UP UCP: Upper extra corner pin position	2		
12	LXCP	LO UCP: Lower extra corner pin position	2		
13	XCPP	UC POL: Extra corner pin polarity	0		
14	PPHA	PIN PHASE: Pin phase	31		
15	VANG	AFC ANGLE: AFC angle	31		
16	LANG	HC PARA PHASE: Linearity angle	31	33	
17	VBOW	AFC BOW: AFC bow	31		
18	LBOW	HC PARA AMP: Linearity bow	39	63	
19	CPY1	Copy function 1: (Set CPY1=1, then press MUTE+Enter) * Not used	0		

CRT Driver CXA2150D-3 (Deflection Controls:D3)

Reg.No & Name		FUNCTION	Full	Vcomp1	Vcomp2
0	HBLK	HBLK SW: Horizontal blanking switch		1	
1	LBLK	LEFT BLK: Left blanking		56	56
2	RBLK	RIGHT BLK: Right blanking		25	25
3	VBLK	VBLK SW: Vertical blanking switch	1	1	
4	TBLK	UP BLK: Top blanking	15	14	12
5	BBLK	LO BLK: Bottom blanking	15	15	13
6	VCMP	V COMP: Vertical compensation	0	3	3
7	HCMP	H COMP: Horizontal compensation	0	0	
8	ACMP	AFC COMP: AFC compensation	0	0	
9	PCMP	PIN COMP: Pin compensation	0	0	
10	AFCM	AFC MODE: AFC compensation	3		2
11	VFRQ	V FREQ: Vertical frequency		1	
12	VON	V ON: Vertical drive on		1	
13	JUMP	JMP SW: Reference pulse jump switch	0	1	
14	VDJP	VDRV SW: Vertical drive switch	1	1	1
15	VDST	RST SW: Vertical drive start switch	0	0	0
16	EWDC	EW DC: Pin DC level shift	0	0	
17	AKBT	AKBTIM: AKB timing	9	9	9

Component I/F & Sync Separation CXA2151

Reg.No & Name		FUNCTION	480i	480P	1080i	720P
			15.75khz	31.50khz	33.75khz	45khz
0	MTRX	MAT OUT	0	0	1	1
1	GAIN	GAIN SEL	0			
2	CBGN	CBGAIN	9			
3	VTC	V TC	1			
4	HWID	H WIDTH	1			
			Video5	Video6	Sub	
5	HSEP	HSEP SEL	0	0	0	
6	TEST	TEST	0			
7	FRGB		0			
			Full	Vcomp1	Vcomp2	
8	HMSK	Hsync masking in vertical retrace	1		0	

Audio Processor (AP) BH3868FS

Reg.No & Name		FUNCTION	43", 53"	61"
0	SVOL	Volume:Offset for Volume	0	0
1	SBAL	Balance Offset for Balance	7	7
2	SBAS	Bass:Offset for Bass	7	11
3	STRE	Treble:Offset for Treble	7	6
4	BBLP	BBE low pass filter	0	0
5	BBHP	BBE high pass filter	2	2
6	SREF	Surround effect	11	11
7	AGC	Auto gain control	0	0
8	BBE	BBE on/off	0	0

TruSurround (TRUS) NJM2180

Reg.No & Name		FUNCTION	
1	TSMD	Trusurround effect selection	2
0	ATT		0

MID-1 (Display Data : Output)

Reg.No & Name		FUNCTION			
	(A) Display Data (Only One)		(for 4:3)		
0	DHPH	H active display area phase	110		
1	DVPH	V active display area phase	20		
2	DHAR	H active display area size	240		
3	DVAR	V active display area size	135		
4	DHPW	display H pulse width	55		
5	DVPW	display V pulse width	5		
22	DPSW	display PLL switch	1 (fixed)		
23	MDL	model select (16:9/4:3)	1		
	(B) Misc. Common Data		Data		
6	DYCD	display output Y-C delay correction	2		
7	DYSD	display output YS signal delay select	1		
	(C) Favorite / Other		Favorite	Others	
8	MDHP	main display picture H position	9	0	
10	MDHS	main display picture H size	160	240	
	(D) Single (Input Signal Format) / Favorite		Single 480i/480P	Single 720P	Favorite
9	MDVP	main display picture V position	30	30	27
11	MDVS	main display picture V size	120	120	81
	(E) Index / Others		Index	Others	
12	MLHP	multi picture mode H position	32	36	
13	MLVP	multi picture mode V position	47	31	
	(F) Favorite		Favorite		
14	SDHS	sub display picture H position	171		
15	SDVS	sub display picture V position	27		
	(G) Favorite		Favorite		
16	SDHS	sub display picture H size	59		
17	SDVS	sub display picture V size	29		
	(H) PinP Position (Not Used)				
18	PDHP	(PinP Large mode H position)	–		
19	PDVS	(PinP Large mode V position)	–		
	(I) PinP Size (Not Used)				
20	PDHS	(PinP Large mode H size)	–		
21	PDVS	(PinP Large mode V size)	–		
	(J) Single / Others		Single	Others	
24	BCOL	Background Y level	0	5	

MID-2 (Active Data for DRC : INPUT))

Reg.No & Name		FUNCTION				
	(A) MID Mode, Wide mode, Input Signal Format		Single			
			RF, Video, YC	YPbPr		
0	DRHP	DRC H active area position	111	110		
1	DRHS	DRC H active area size	178	178		
2	DRVP	DRC V active area position	37	37		
3	DRVS	DRC V active area size	120	120		
			Twin, Favorite		Memo	
			RF, Video, YC	YPbPr	RF, Video, YC	YPbPr
0	DRHP	DRC H active area position	132	131	142	141
1	DRHS	DRC H active area size	166	166	162	162
2	DRVP	DRC V active area position	54	54	58	58
3	DRVS	DRC V active area size	112	112	110	110
			Index		Twin-Right	Index-Small
			RF, Video, YC	YPbPr	RF, Video, YC	RF
0	DRHP	DRC H active area position	139	138	138	143
1	DRHS	DRC H active area size	164	164	166	162
2	DRVP	DRC V active area position	50	50	54	54
3	DRVS	DRC V active area size	114	114	112	112

MID-3 (Active Data for A/D (VDO) : INPUT)

Reg.No & Name		FUNCTION						
	(A) MID mode, Wide mode, Input Signal Format		Single					
			480P	720P	YPbPr No Signal			
0	VDHP	VDO H active area position	109	95	205			
1	VDHS	VDO H active area pixel size	166	108	226			
2	VDVE	VDO V active area even position	37	24	37			
3	VDVS	VDO V active area line size	120	180	56			
			Twin, Favorite				Twin-Right	
			480P	1080i	720P	YPbPr No Signal	RF, Video, S-Video	
0	VDHP	VDO H active area position	128	94	111	179	197	
1	VDHS	VDO H active area pixel size	155	150	99	199	215	
2	VDVE	VDO V active area even position	53	37	50	24	26	
3	VDVS	VDO V active area line size	112	126	168	56	56	
			Memo					
			480P	1080i	720P	YPbPr No Signal		
0	VDHP	VDO H active area position	136	102	115	179		
1	VDHS	VDO H active area pixel size	152	147	98	199		
2	VDVE	VDO V active area even position	57	44	58	24		
3	VDVS	VDO V active area line size	110	123	164	56		
			Index				Index-Small	
			480P	1080i	720P	YPbPr No Signal	RF	
0	VDHP	VDO H active area position	132	99	112	166	204	
1	VDHS	VDO H active area pixel size	154	149	99	187	211	
2	VDVE	VDO V active area even position	51	34	48	24	26	
3	VDVS	VDO V active area line size	113	128	169	56	56	
	(B) Input Signal Format							
			RF, Video, S-Video, YPbPr 480i		480P	1080i	720P	
4	VDVO	VDO V active area line size	0		0	0	0	
5	VCPO	VDO V active area odd position	95		70	40	40	
6	VCWD	VDO clamp pulse output timing	3		3	3	3	
7	VYCD	VDO clamp pulse width	0		0	0	0	
8	VSTP	VDO PLL phase ditect stop line count	–		119	160	146	
9	VSTT	VDO PLL phase ditect start line count	–		4	0	0	
10	VHSC	VDO H sync cycle	130		–	–	–	

MID-5 (Picture Data) (A) Enhance Table Data Setting

0	P-OP	Table select	0	1	2	3	4	5	6	7
1	MHLY	Main H LPF Y Coefficient select	1	1	1	1	1	1	1	1
2	MHLC	Main H LPF C Coefficient select	3	3	3	3	3	3	3	3
3	MVLY	Main V LPF Y Coefficient select	0	0	0	0	0	0	0	0
4	MVLC	Main V LPF C Coefficient select	0	0	0	0	0	0	0	0
5	MHYR	Main H Enhance. Y Coreing level	0	0	1	1	0	0	0	1
6	MHYL	Main H Enhance. Y Clip level	1	1	1	1	1	1	1	1
7	MHYE	Main H Enhance. Y Enhancement level	7	7	3	3	7	7	3	5
8	MHYO	Main H Enhance. Y Coefficient select	1	1	1	1	1	1	1	1
9	MHCR	Main H Enhance. C Coreing level	0	0	0	0	0	0	0	0
10	MHCL	Main H Enhance. C Clip level	1	1	1	1	1	1	1	1
11	MHCE	Main H Enhance. C Enhancement level	0	0	0	0	0	0	0	0
12	MHCO	Main H Enhance. C Coefficient select	1	1	1	1	1	1	1	1
13	MVYR	Main V Enhance. Y Coreing level	0	0	2	2	0	0	2	2
14	MVYL	Main V Enhance. Y Clip level	1	1	1	1	1	1	1	1
15	MVYE	Main V Enhance. Y Enhancement level	0	0	2	5	0	0	2	5
16	MVCR	Main V Enhance. C Coreing level	0	0	0	0	0	0	0	0
17	MVCL	Main V Enhance. C Clip level	1	1	1	1	1	1	1	1
18	MVCE	Main V Enhance. C Enhancement level	0	0	0	0	0	0	0	0
0	P-OP	Table select	8	9	10	11	12	13	14	15
1	MHLY	Main H LPF Y Coefficient select	0	0	0	0	1	1	1	1
2	MHLC	Main H LPF C Coefficient select	3	3	3	3	3	3	3	3
3	MVLY	Main V LPF Y Coefficient select	0	0	0	0	0	0	0	0
4	MVLC	Main V LPF C Coefficient select	0	0	0	0	0	0	0	0
5	MHYR	Main H Enhance. Y Coreing level	0	0	0	1	0	0	0	1
6	MHYL	Main H Enhance. Y Clip level	1	1	1	1	1	1	1	1
7	MHYE	Main H Enhance. Y Enhancement level	7	7	3	5	7	7	3	3
8	MHYO	Main H Enhance. Y Coefficient select	1	1	1	1	1	1	1	1
9	MHCR	Main H Enhance. C Coreing level	0	0	0	0	0	0	0	0
10	MHCL	Main H Enhance. C Clip level	1	1	1	1	1	1	1	1
11	MHCE	Main H Enhance. C Enhancement level	0	0	0	0	0	0	0	0
12	MHCO	Main H Enhance. C Coefficient select	1	1	1	1	1	1	1	1
13	MVYR	Main V Enhance. Y Coreing level	0	0	2	2	0	0	2	2
14	MVYL	Main V Enhance. Y Clip level	1	1	1	1	1	1	1	1
15	MVYE	Main V Enhance. Y Enhancement level	0	0	2	5	0	0	2	5
16	MVCR	Main V Enhance. C Coreing level	0	0	0	0	0	0	0	0
17	MVCL	Main V Enhance. C Clip level	1	1	1	1	1	1	1	1
18	MVCE	Main V Enhance. C Enhancement level	0	0	0	0	0	0	0	0

* No.19 - No.36 data is all "0" not to use.

On-Screen Display (OSD)

Reg.No	& Name	FUNCTION	
0	HPOS	OSD horizontal position	14
1	HPOF	Horizontal position for Favorite mode	37
2	VPOS	OSD vertical position	4
3	VPOT	Vertical position for P&P (Twin) mode	40

SNNR

Reg.No	& Name	FUNCTION					
0	SNNR	SNNR data setting	0	1	2	3	
1	SNFX	Selection of SNNR data setting	0				
2	WSLT	Noise level detection data thresholds for SNNR data (read data)	0 -30	31 -62	63 -126	127 -255	
		SNNR Settings based on WSL Data					
	SNNR=0/1/2/3		0	1	2	3	SNNR data is used for the (-) offset setting.
3	CPFG	Related to 3D-COMB (upD64802) / #19 YPFG settings	0	1	2	3	
4	CPFT	Related to 3D-COMB (upD64802) / #18 YPFT settings	0	0	0	0	SNNR data is used for the direct setting.
5	CCOR	Related to 3D-COMB (upD64802) / #20 VHCO settings	0	1	1	1	
6	CHCG	Related to 3D-COMB (upD64802) / #21 VHCG settings	1	1	1	1	
7	CAPG	Related to 3D-COMB (upD64802) / #16 VAPG settings	0	0	0	0	
8	3SHP	Related to CXA2103 / #6 SHAP settings	0	1	2	3	
9	MIDD	Related to CXA2150P-3 / #19 MIDE settings	0	0	0	0	
10	5SHP	Related to CXA2150P-4 / #4 USHP settings	0	1	3	4	SNNR data is used for the (-) offset setting.
11	5YF1	Related to CXA2150P-3 / #10 F1LV settings	0	1	2	3	
12	5CDS	Related to CXA2150P-3 / #11 CDSP settings	0	0	0	0	
13	5LTI	Related to CXA2150P-3 / #12 LTLV settings	0	0	0	0	
14	5CTI	Related to CXA2150P-3 / #14 CTLV settings	0	0	0	0	
15	5VML	Related to CXA2150P-3 / #1 UVML settings	0	0	0	0	
16	5VMC	Related to CXA2150P-3 / #3 VMCR settings	0	1	2	3	SNNR data is used for the (+) offset setting.

ID-1 Detection

Reg.No	& Name	FUNCTION	
0	XJGL	XJGLK: Setting for memorizing or not the ID-1 detection status	0
1	LNJI	LNJI: Setting for the multi/single-line ID-1 detection	0

Closed Caption Display & Parental Control (CCD&VCHIP)

Reg.No	& Name	FUNCTION	
0	HPRM	Horizontal position of CCD (Main)	49
1	HPRS	Horizontal position of CCD (Sub)	49
2	RND	OSD rounding control	1
3	CCDI	Interruption control	3
4	CRIP	CRI count & parity count	4
5	CRIT	Charge/Discharge timing control for slice voltage level	0
6	CHMK	Horizontal mask width	42
7	FPOL	Field polarity selection	1
8	LANG		0
9	DATA	Swwitch for CCD service/test data	0
10	VCHIP	Selection of Vchip controls	1

OPTIONS

Reg.No	& Name	FUNCTION	
0	DLY1	Power-On to RLY timing = DLY1 x 50ms	2
1	DLY2	Power-On Mute timing = DLY2 x 50ms	12
2	DLY3	Relay-On to start Bus communication	12
3	AGC		255
4	PCMX		63
5	BRMX		63
6	RAMW		0

ID

Reg.No	& Name	FUNCTION	
0	ID0	Selection of OSD languages & color system	89
1	ID1	Selection of composite & s-video inputs	127
2	ID2	Selection of audio-related controls	239
3	ID3	Selection of basic system settings	98
4	ID4	Selection of basic system settings	203
5	ID5	Selection of advanced system settings	177
6	ID6	Selection of sub picture related sesttings	54
7	ID7	Selection of some reserved settings	24

PJ Engine

ITEM No.	ITEM Name	Contents	min	max	init (4:3)		
					Normal	V.Comp	HD
0	FDIS	Switch of display for fine adjustment data	0	1	–		
1	COPY	Service copy adjustment	0	1	–		
2	ALCP	Service all copy adjustment	0	1	–		
3	OSDH	Osd horizontal position of PJED service menu	1	255	22		
4	OSDV	Osd vertical position of PJED service menu	1	255	100	100	100
5	FVSL	Start position of fine adjustment	0	15	0	1	1
6	FVSP	Start line of fine adjustment	0	255	3	25	73
7	V1DL	Value of V1 delay	0	255	1	1	1
8	V1CU	Value of V1 count up	0	4095	454	337	292
9	V1OH	Value of V1 offset upper data	0	255	5	134	185
10	V1OL	Value of V1 offset lower data	0	255	0	0	0
11	OEVP	Odd/Even select position	0	4095	1056		
12	COHP	Horizontal phase for rough adjustment	0	4095	0		
13	34CS	Start center clamp position of H3 and H4 pulse	0	31	14		
14	34CW	Width center clamp position of H3 and H4 pulse	0	31	0		
15	FIHP	Horizontal phase for fine adjustment	0	4095	1082		
16	TPHP	Horizontal phase for test pattern	0	4095	66		
17	TPVP	Vertical phase for test pattern	0	255	55	53	17
18	DFHP	Horizontal phase for dynamic focus	0	4095	270		
19	DFHG	Value of horizontal parabola wave for dynamic focus	-128	127	-65	-65	-65
20	DFVG	Value of vertical parabola wave for dynamic focus	-128	127	-90	-90	-90
21	DFDC	Value of center for dynamic focus	-128	127	127	127	127
22	DFV1	Value of V1 saw wave for dynamic focus	-128	127	-50	-50	-50
23	SDHP	Compensation of horizontal phase for shading	0	4095	444		
24	SDH1	Value of horizontal saw wave for dynamic focus	-128	127	63	127	127
25	RVCS	Start position of Red vertical clamp	0	31	0		
26	RVCW	Width of Red vertical clamp	0	31	0		
27	GVCS	Start position of Green vertical clamp	0	31	0		
28	GVCW	Width of Green vertical clamp	0	31	0		
29	BVCS	Start position of Blue vertical clamp	0	31	0		
30	BVCW	Width of Blue vertical clamp	0	31	0		
31	RHCS	Start position of Red horizontal clamp	0	31	0		
32	RHCW	Width of Red horizontal clamp	0	31	0		

PJ Engine

ITEM No.	ITEM Name	Contents	min	max	init (4:3)		
					Normal	V.Comp	HD
33	GHCS	Start position of Green horizontal clamp	0	31	0		
34	GHCW	Width of Green horizontal clamp	0	31	0		
35	BHCS	Start position of Blue horizontal clamp	0	31	0		
36	BHCW	Width of Blue horizontal clamp	0	31	0		
37	BDVU	Vartical positioni for boder line 1	0	2047	23	1	1
38	BDVL	Vartical positioni for boder line 2	0	2047	905	935	1079
39	BDHL	Horizontal position for boder line 1	0	2047	148		
40	BDHR	Horizontal position for boder line 2	0	2047	1262		
41	HBLD	Horizontal phase for output of H.Blank out	0	4095	0		
42	HBLW	Width for output of H.Blank out	0	4095	0		
43	PWM2	PWM2 output width setting of Regi IC	0	4095	43:500 53:345 61:600		
44	COGV	Green vertical center offset data for Auto Regi.	-128	127	–		
45	CORV	Red vertical center offset data for Auto Regi.	-128	127	–		
46	COBV	Blue vertical center offset data for Auto Regi.	-128	127	–		
47	COGH	Green horizontal center offset data for Auto Regi.	-128	127	–		
48	CORH	Red horizontal center offset data for Auto Regi.	-128	127	–		
49	COBH	Blue horizontal center offset data for Auto Regi.	-128	127	–		
50	SOGV	Green vertical skew offset data for Auto Regi.	-128	127	–		
51	SORV	Red vertical skew offset data for Auto Regi.	-128	127	–		
52	SOBV	Blue vertical skew offset data for Auto Regi.	-128	127	–		
53	SOGH	Green horizontal skew offset data for Auto Regi.	-128	127	–		
54	SORH	Red horizontal skew offset data for Auto Regi.	-128	127	–		
55	SOBH	Blue horizontal skew offset data for Auto Regi.	-128	127	–		
56	ZOGH	Green horizontal size offset data for Auto Regi.	-128	127	–		
57	ZORH	Red horizontal size offset data for Auto Regi.	-128	127	–		
58	ZOBH	Blue horizontal size offset data for Auto Regi.	-128	127	–		
59	LOGH	Green horizontal linearity offset data for Auto Regi.	-128	127	–		
60	LORH	Red horizontal linearity offset data for Auto Regi.	-128	127	–		
61	LOBH	Blue horizontal linearity offset data for Auto Regi.	-128	127	–		
62	ERR	Auto Regi. Error code	0	–	–		
63	ADTM	A/D data input timing of Auto Regi.	0	127	43:134 53:134 61:134		
64	VUP	Auto Regi. Pattern Upper vertical position	0	2047	43:50 53:50 61:50		
65	VUPM	Auto Regi. Pattern Upper middle vertical position	0	2047	0		
66	VMID	Auto Regi. Pattern Middle vertical position	0	2047	43:510 53:510 61:510		

PJ Engine

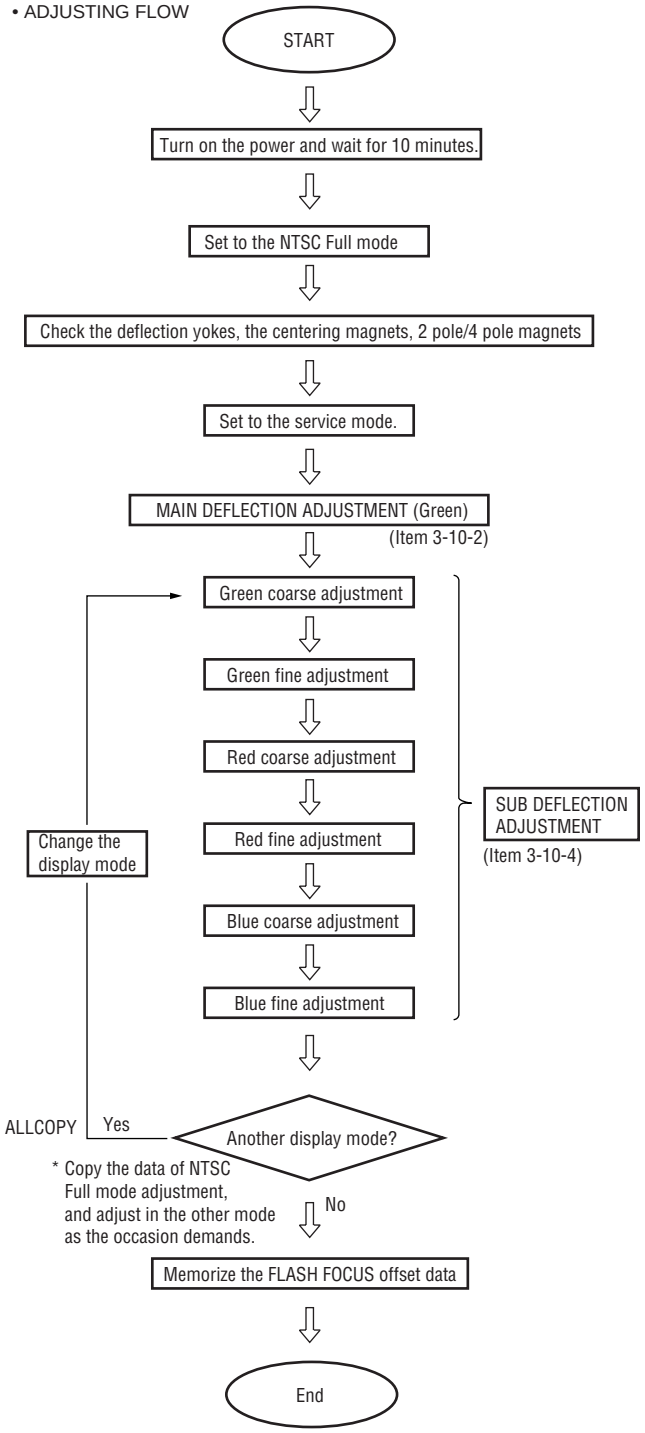
ITEM No.	ITEM Name	Contents	min	max	init (4:3)		
					Normal	V.Comp	HD
67	VLOM	Auto Regi. Pattern Lower middle vertical position	0	2047	0		
68	VLOW	Auto Regi. Pattern Lower vertical position	0	2047	43:975 53:975 61:975		
69	HLB	Auto Regi. Pattern left horizontal position	0	4095	43:85 53:85 61:85		
70	HLBM	Auto Regi. Pattern left middle horizontal position	0	4095	0		
71	HMID	Auto Regi. Pattern middle horizontal position	0	4095	43:685 53:685 61:685		
72	HRIM	Auto Regi. Pattern right middle horizontal position	0	4095	0		
73	HRIV	Auto Regi. Pattern right horizontal position	0	4095	43:1215 53:1215 61:1215		
74	SFTF	Switch of shift fast	0	1	0		
75	ACTL	Acount timer counter lower byte	0	–	0		
76	ACTH	Acount timer counter upper byte	0	–	0		
77	SLSW	Auto Regi adjustment item select	0	3	43:0 53:0 61:0		

			min	max	4:3		
					Green	Blue	Red
78	CENT		-512	511	ADJ +35, +20	ADJ +35, +20	ADJ +35, +20
79	SKEW		-512	511	ADJ 0, 0	ADJ 0, 0	ADJ 0, 0
80	SIZE		-512	511	ADJ -100, -75	ADJ -100, -75	ADJ -100, -75
81	LIN		-512	511	ADJ 0, 0	ADJ -410, 0	ADJ 410, 0
82	KEY		-512	511	ADJ x, 0	ADJ x, -120	ADJ x, 120
83	PIN		-512	511	ADJ 0, 320	ADJ 0, 300	ADJ 0, 300
84	MLIN		-512	511	ADJ 0, x	ADJ 145, x	ADJ -145, x
85	MSIZ		-512	511	ADJ 0, x	ADJ 100, x	ADJ 100, x

Note: 4:3 has Normal, V.Comp, HD separately

3-11. REGISTRATION ADJUSTMENT

• ADJUSTING FLOW

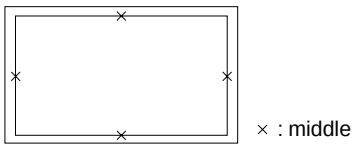

START
Turn on the power and wait for 10 minutes.
Set to the NTSC Full mode
Check the deflection yokes, the centering magnets, 2 pole/4 pole magnets
Set to the service mode.
MAIN DEFLECTION ADJUSTMENT (Green)
(Item 3-10-2)
Green coarse adjustment
Green fine adjustment
Red coarse adjustment
Red fine adjustment
Blue coarse adjustment
Blue fine adjustment
SUB DEFLECTION ADJUSTMENT
(Item 3-10-4)
Change the display mode
ALLCOPY
Yes
Another display mode?
* Copy the data of NTSC Full mode adjustment, and adjust in the other mode as the occasion demands.
No
Memorize the FLASH FOCUS offset data
End

3-11-1. Setup for Adjustment

1. Marking

1) At the 4 insides of the screen, locate the middle. Use a tape measure to identify the middle.

2. Data Setting



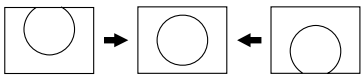
1) Set NTSC Full mode.
2) Enter the Service mode, and select “PJE”.

3-11-2. Main Deflection Adjustment

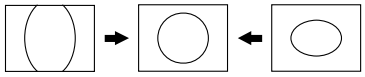
Note : Before this adjustment, input the data of PJE item No. 78-85, (See page 24).

1. Place the caps on the red and blue lenses so that only the green color is displayed.
2. Enter the monoscope signal and set to NTSC Full mode .
3. Enter the Service mode, and select “2150D-1” .
4. Adjust “0 VPOS” and “1 VSIZ” so that the picture is displayed in the center of screen.

0 VPOS



1 V-Size

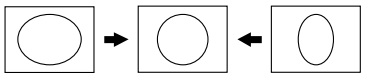


5. Select “2150D-2” and adjust “2 H-Size” so that the picture size is within the specification.

SPEC Overscan Spec. = 9%

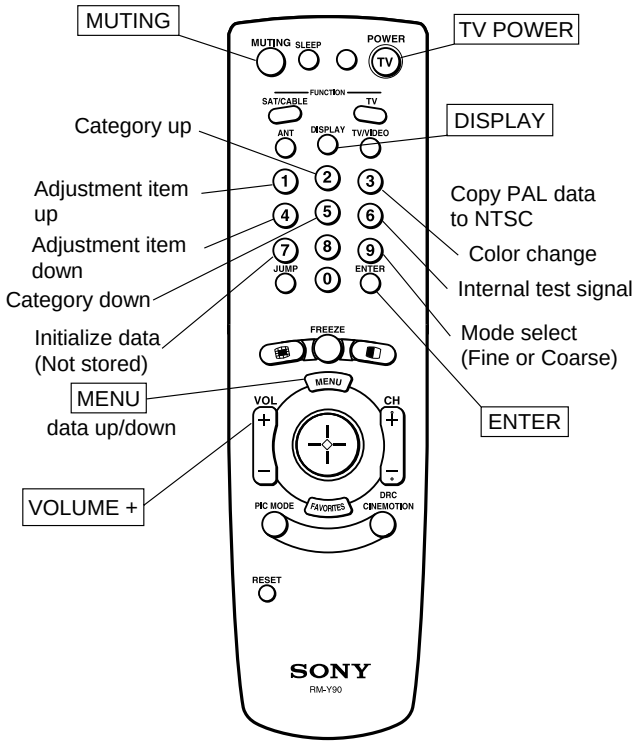
Input Signal	H SIZE	V SIZE
Monoscope	15.6 ± 0.2 sq.	11.5 ± 0.2 sq.

2 H-Size



6. Copy the dada of NTSC Full mode to the other display mode and adjust in the other mode as the occasion demands.

3-11-3. Operation Method for Projector Engine Mode



RM-Y908

1. Functions of Keys on Commander

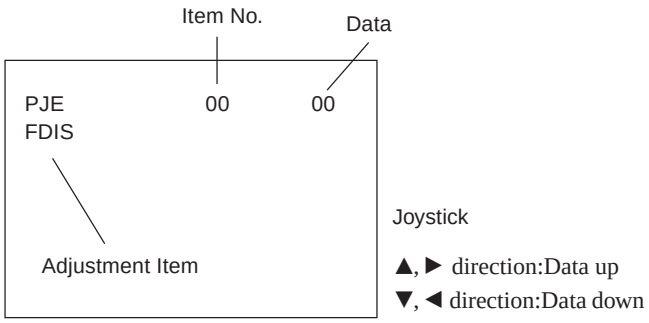
- ① : Changes adjustment item. (item No. moves up)
  : Marker moves clockwise from center to outside. (in fine adjustment mode)
- ④ : Changes adjustment item. (item No. moves down)
  : Marker moves counterclockwise from outside to center. (in fine adjustment mode)
- ② : Changes adjustment category. (category No. moves up)
- ⑤ : Changes adjustment category. (category No. moves down)
- Joystick : Changes data value. (up or down)
  : Marker moves up, down, or to the left or right. (in fine adjustment mode)
- ③ : Changes adjustment color. GRN → BLU → RED
- ⑥ : Displays or changes internal test signals.
  : crosshatch + external signal → crosshatch +borderline → crosshatch only → dot only → off
- ⑨ : Switches adjustment mode. Coarse adjustment mode → fine adjustment mode
- Press joy stick : Switches marker moving method. (in fine adjustment mode) joystick (▲, ▼, ◄, ►) keys → ① and ④ buttons

Commander Function

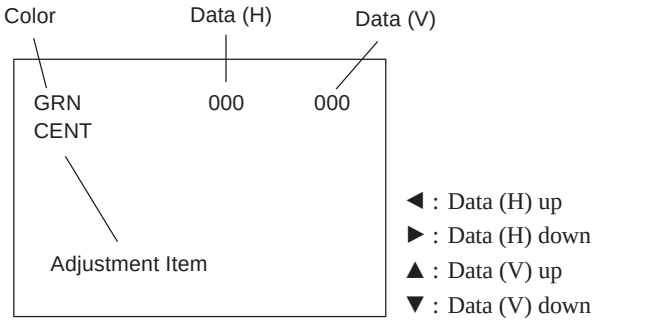
Buttons	Mode	Description
⓪ + ENTER	READ	Writes data to NVM.
MUTING+ENTER	WRITE	Reads data from NVM.
⑦ + ENTER	PJE INITIAL	Service data initialization. Not stored. (Be sure not to use usually)

2. Operation Method for Coarse Adjustment

1) Enter the Service mode, and select “PJE”.
2) Press “①” or “④” button on the commander to select the item, and use the joystick to change the data.



3) Select “GRN CENT” . When BLU or RED is displayed, press “③” button on the commander to change the adjustment color in the order of GRN → BLU → RED.
4) In the GRN, BLU, or RED mode,move ▲, ▼direction the joystick can change the data in vertical direction, or ◄, ► direction in horizontal direction.

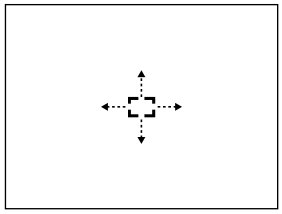


5) Before returning to the Service mode, press “MUTING” +“ENTER” buttons on the commander to write the data. (Omission of this operation causes the set data to be returned to the data before adjustment)

3. Operation Method for Fine Adjustment

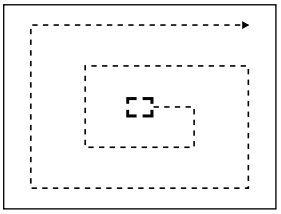
1) Select the PJE mode.
2) Select FDIS so that the data at each position can be displayed in the fine adjustment mode, and set the data to "01".
3) Press "⑨" button on the commander, and the fine adjustment mode will be active where a green marker appears in the center of screen (in the case of GRN mode).
4) Press joystick, and the marker color will be switched between green (GRN mode) and white alternately.
5) Use "①" or "④" button on the commander, or the joystick to move the marker to the position to be adjusted, where fine adjustment can be made.

• When marker color is white.
(in this case, fine adjustment is disabled)



Operating the joystick can move the marker up, down, or to the left or right freely.

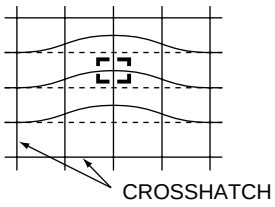
• When marker color is green. (GRN mode)



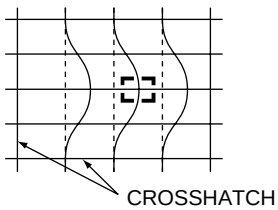
① : moves the marker clockwise from center to outside.
④ : moves the marker counterclockwise from outside to center.

• Fine adjustment can be made on the basis of marker position using ▲, ▼, ◄, ► directiom of the joystick.

Move joystick ▲ direction



Move joystick ► direction



6) Press "⑨" button on the commander to return to the coarse adjustment mode.

3-11-4. PJE Adjustment (Sub Deflection Adjustment)

Adjustment ○ : Yes – : No

Adjustment Item	Adjustment Type		
	GRN	RED	BLU
	H / V	H / V	H / V
CENT	○ / ○	○ / ○	○ / ○
SKEW	○ / ○	○ / ○	○ / ○
SIZE	○ / ○	○ / ○	○ / ○
LIN	○ / ○	○ / ○	○ / ○
KEY	– / ○	– / ○	– / ○
PIN	○ / ○	○ / ○	○ / ○
MLIN	○ / –	○ / –	○ / –
MSIZ	○ / –	○ / –	○ / –

Note: If the value of over the limit value, adjust these in the fine adjustment .
Coarse Data Limit Valune.
Cent H 35±170 V 20±170, Size H-75max, Lin H Blu -425min, H Red 425max.

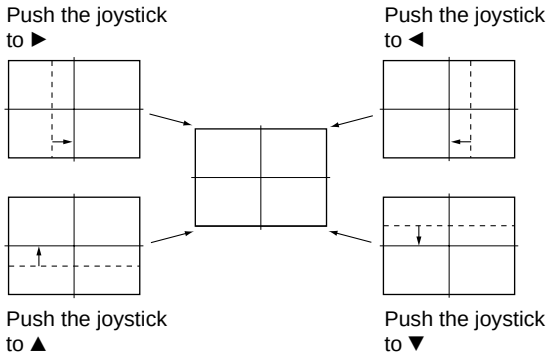
<Adjustment for NTSC Full Mode>

• The adjustment should be done in the numerical order given.

1. Green Adjustment

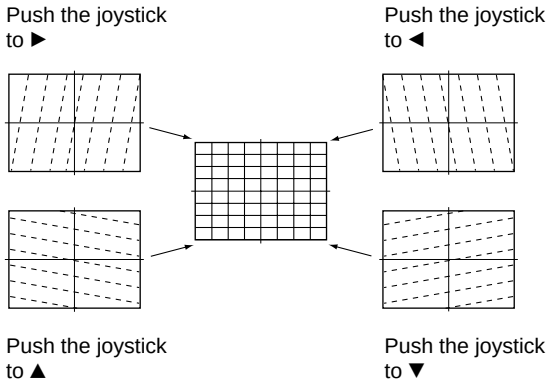
1) Place the caps on the red and blue lenses so that only the green color is displayed.
2) Enter the monoscope signal to set.
3) Select the PJE mode.
4) Press "⑥" button on the commander to display internal test signal (crosshatch).
5) Select "GRN CENT", and adjust so that the picture coincide in the center of screen.

• GRN CENT (horizontally/vertically)



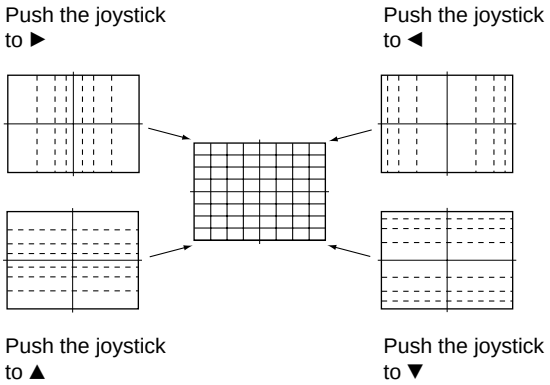
7) Select “GRN SKEW”, and correct the tilt of horizontal lines and vertical lines.

• GRN SKEW (horizontally/vertically)



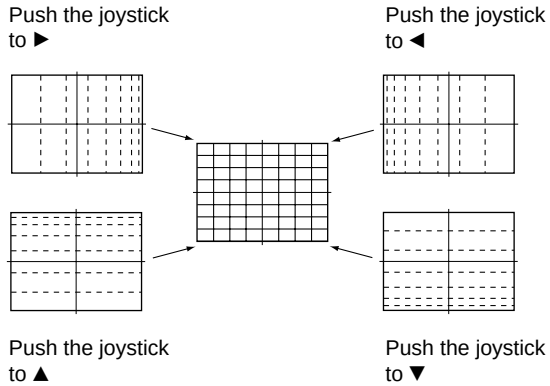
8) Select “GRN SIZE”, and adjust so that each distance from center to left end and to right end is equal. Adjust so that each distance from center to top and to bottom is equal.

• GRN SIZE (horizontally/vertically)



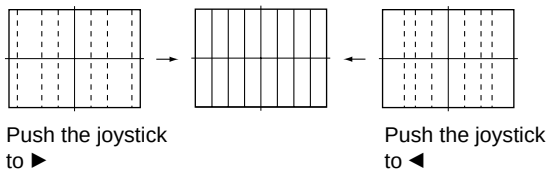
9) Select “GRN LIN”, and adjust so that each space at the right end and at the left end of screen is equal. Adjust so that each space at the top and at the bottom of screen is equal.

• GRN LIN (horizontally/vertically)



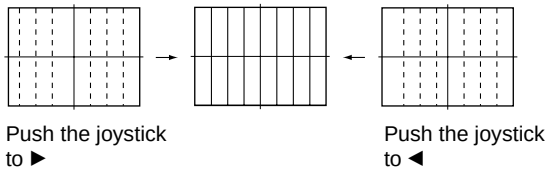
10) Select “GRN MSIZ”, and correct the space intervals for the horizontal section of the screen are equal.

• GRN MSIZ (horizontally)



11) Select “GRN MLIN”, and correct the sizes of the horizontal line at the center of the screen are symmetrical left and right.

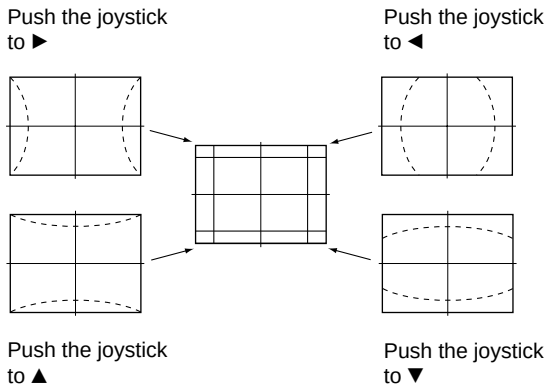
• GRN MLIN (horizontally)



Note: The SIZE and LIN, MSIZ and MLIN adjustments are affected each other.
So adjust these mutually if necessary.

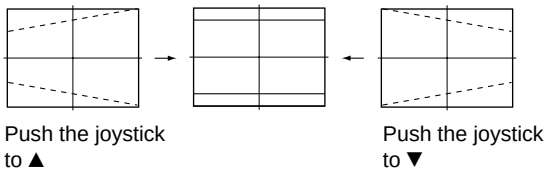
12) Select “GRN PIN”, and adjust so that right and left vertical lines on the screen become straight. Adjust so that upper and lower horizontal lines on the screen become straight.

• GRN PIN (horizontally/vertically)



13) Select “GRN KEY”, and adjust so that upper and lower horizontal lines on the screen become parallel.

• GRN KEY (vertically)



Note: The VPINand KEY adjustments are affected each other.
So adjust these mutually if necessary.

14) Press "⑨" button on the commander to enter the fine adjustment mode.
15) Make fine adjustment so that horizontal lines and vertical lines become straight.
16) Press "⑨" button on the commander to return to the coarse adjustment mode.

2. Red Adjustment

1) Place a cap on the blue lens so that green and red colors are displayed.
2) Press "③" button on the commander to select RED mode.
3) Adjust the following items so that red lines overlap with green lines.

• RED CENT (horizontally/vertically)
• RED SKEW (horizontally/vertically)
• RED SIZE (horizontally/vertically)
• RED LIN (horizontally/vertically)
• RED MSIZ (horizontally)
• RED MLIN (horizontally)
• RED PIN (horizontally/vertically)
• RED KEY (vertically)

4) Press "⑨" button on the commander to enter the fine adjustment mode.
5) Make fine adjustment so that horizontal lines and vertical lines overlap with green lines.
6) Press "⑨" button on the commander to return to the coarse adjustment mode.

3. Blue Adjustment

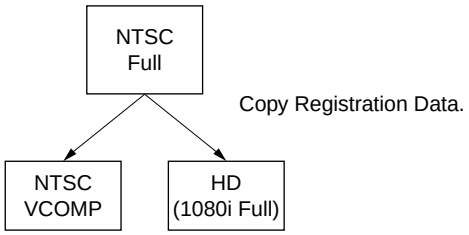
1) All colors are displayed.
2) Press "③" button on the commander to select BLU mode.
3) Hereinafter, use same manner as that of red adjustment to adjust so that the blue lines overlap with green and red lines.

4. Registration Data Writing

1) After each adjustment of green, blue, and red for the NTSC Full mode finished, press "MUTING"+ "ENTER" buttons on the commander to write registration data to the NVM.

<Copy All Registration Data to Other modes>

1. Make sure that the adjustment for NTSC Full mode finished and the data have already been written.
2. Select the PJE mode.
3. Select ALCP and set the data to "01", and press "MUTING"+"ENTER" buttons on the commander.
4. The data of NTSC Full mode are copied to all other modes.



5. Check in the other mode and adjust as the occasion demands. Be sure to write data in each mode.

3-12. AUTO CONVERGENCE OFFSET

This adjustment must be performed after the registration adjustment was made or after readjustment was made by any reason.

1. Darken the periphery of this set.
2. Enter the monoscope signal to set the NTSC Full mode.
3. Select the PJE mode.
4. Press "FLASH FOCUS" button on the front panel of the set. (The offset value is now automatically stored)
5. Select " ERR" of PJE mode.
   Confirm ERR is "00". If ERR is not "00", recheck. (Refer to 3-12.)
6. Exit the service mode.

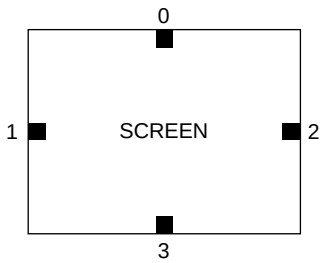
3-13. AUTO REGISTRATION ERROR CODE LIST

If an error code is displayed after the set has been fully adjusted, correctly, plese check the following items : position, tilt and sizing. If either of these adjustments are off, even slightli, the auto registration pattern will not hit the four sensors properly. This occurs when the internal generator patterns is being flashed on the screen for the sensor to read. Therefore, auto registration (called auto convergence) cannot operate properly causing an error code to be displayed. In order for this function to operate properly, correct position, tilt and size must be adjusted properly.

ERROR CODE LIST

ERROR CODE	DESCRIPTION	REMEDY
00	No Error	
10	Sensor 0 low output	Check sensor 0, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust “64 VUP” if necessary.
11	Sensor 1 low output	Check sensor 1, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust “69 HLB” if necessary.
12	Sensor 2 low output	Check sensor 2, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust “73 HRIV” if necessary.
13	Sensor 3 low output	Check sensor 3, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust “68 VLOW” if necessary.
20	Sensor 0 high output	Check sensor 0 and circuit.
21	Sensor 1 high output	Check sensor 1 and circuit.
22	Sensor 2 high output	Check sensor 2 and circuit.
23	Sensor 3 high output	Check sensor 3 and circuit.
30	V CENT or SKEW adjustment loop overflow	Check “66 VMID” data and check registration condition.
31	H CENT or SKEW adjustment loop overflow	Check “71 HMID” data and check registration condition.
32	H LIN or SIZE adjustment loop overflow	Check “71 HMID” data and check registration condition.
40	V CENT regi data overflow	Check “66 VMID” data and confirm V CENT data (all mode) is not near 511.
41	H CENT regi data overflow	Check “71 HMID” data and confirm H CENT data (all mode) is not near 511.
42	V SKEW regi data overflow	Check “66 VMID” data and confirm V SKEW data (all mode) is not near 511.
43	H SKEW regi data overflow	Check “71 HMID” data and confirm H SKEW data (all mode) is not near 511.
44	H LIN regi data overflow	Check “71 HMID” data and confirm H CENT data (all mode) is not near 511.
45	H SIZE regi data overflow	Check “71 HMID” data and confirm H CENT data (all mode) is not near 511.
50	V CENT regi data overdrow	Check “66 VMID” data and confirm V CENT data (all mode) is not near –512.
51	H CENT regi data overdrow	Check “71 HMID” data and confirm H CENT data (all mode) is not near –512.
52	V SKEW regi data overdrow	Check “66 VMID” data and confirm V SKEW data (all mode) is not near –512.
53	H SKEW regi data overdrow	Check “71 HMID” data and confirm H SKEW data (all mode) is not near –512.
54	H LIN regi data overdrow	Check “71 HMID” data and confirm H CENT data (all mode) is not near –512.
55	H SIZE regi data overdrow	Check “71 HMID” data and confirm H CENT data (all mode) is not near –512.
60	H or V CENT offset overflow	Check “71 HMID” data and check “66 VMID” data.
61	H or V SKEW offset overflow	Check SKEW adjustment.
62	H SIZE or LIN offset overflow	Check “71 HMID” data, check “66 VMID” data and check SIZE and LIN adjustment.
70	H or V CENT offset overdrow	Check “71 HMID” data and check “66 VMID” data.
71	H or V SKEW offset overdrow	Check SKEW adjustment.
72	H SIZE or LIN offset overdrow	Check “69 HLB” data, check “73 HRIV” data and check SIZE and LIN adjustment.
80	SIZE limit error	Check that H SIZE is negative and not near zero.

[SENSOR POSITION]

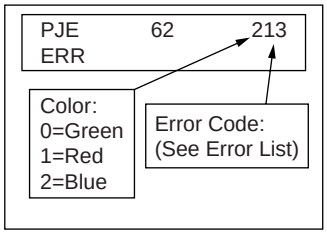


0 : UPPER SENSOR
1 : LEFT SENSOR
2 : RIGHT SENSOR
3 : LOWER SENSOR

Error codes in normal (customer) mode are not displayed. You must enter PJED service mode to see to the error code.

AUTO REGI ERROR CODE FORMAT

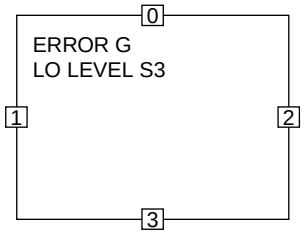
ERROR EXAMPLE



Example: Blue low Level Sensor 3
0-Green
1-Red
2-Blue

When executing flash focus in service mode, the error will be displayed in text format (see below).

SENSOR POSITIONS



SECTION 4
CIRCUIT ADJUSTMENTS

4-1. P & P SUB CONTRAST ADJUSTMENT (VIDEO) (SCON)

1. Receive the signal.
   TV terminal (sub) : no signal
   VIDEO terminal (main) : color-bar signal
2. VIDEO MODE : Pro
   PICTURE : maximum
   COLOR : minimum
   RGB Signal : off
3. Set to P & P mode, and set to service mode.
4. Connect an oscilloscope between pin ③ of CN703 (A board) and ground.
5. Select " 2103-1-02 ", and adjust so that the waveform level of VR is 2.00 ± 0.05Vp-p.
6. Select " 2103-2-02 ", and adjust so that the waveform level of VR is 2.00 ± 0.05Vp-p.
7. Write the data into memory.
   MUTING → ENTER

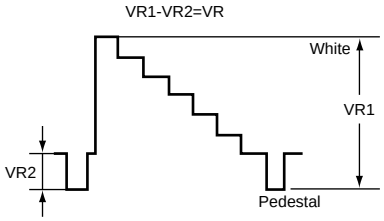


Fig. 4-1

4-2. P & P SUB CONTRAST ADJUSTMENT (RF) (SCON)

1. Receive the signal.
   TV terminal (main) : color-bar signal
   VIDEO terminal (sub) : no signal
2. VIDEO MODE : Pro
   PICTURE : Max imum
   COLOR : Min imum
   RGB Signal : off
3. Set to P & P mode, and set to service mode.
4. Connect an oscilloscope between pin ③ of CN703 (A board) and ground.
5. Select " 2103-1-02 ", and adjust so that the waveform level of VR is 2.00 ± 0.05Vp-p.
6. Select " 2103-2-02 ", and adjust so that the waveform level of VR is 2.00 ± 0.05Vp-p.
7. Write the data into memory.
   MUTING → ENTER

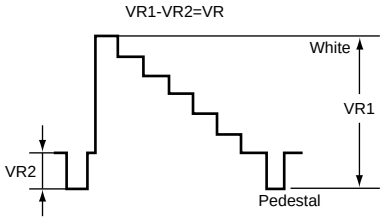


Fig. 4-1

4-3. P & P SUB-HUE AND SUB-COLOR ADJUSTMENT (SHUE, SCOL)

1. Receive the signal.
   TV terminal (sub) : no signal
   VIDEO terminal (main) : color-bar signal
2. VIDEO MODE : Pro
   PICTURE : maximum
   COLOR : center
   HUE : +4 steps
   Signal : off
3. Set to P & P mode, set to service mode.
4. Connect an oscilloscope between pin ③ of CN702 (A board) connecter and ground.
5. Select " 2103-1-03 SCOL, -04 SHUE ", and adjust them to have VB1 ≦ VB4 and VB2 ≦ VB3 in the waveform levels.
6. Select " 2103-2-03 SCOL, -04 SHUE ", and adjust them to have VB1 ≦ VB4 and VB2 ≦ VB3 in the waveform levels.
7. Write the data into memory.
   MUTING → ENTER

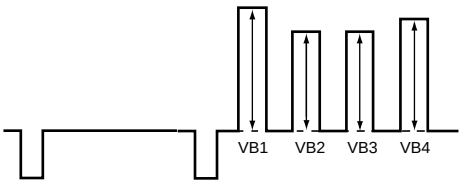


Fig. 4-3

4-4. P & P SUB-HUE AND SUB-COLOR ADJUSTMENT (SHUE, SCOL)

1. Receive the signal.
   TV terminal (main) : color-bar signal
   VIDEO terminal (sub) : no signal
2. VIDEO MODE : Pro
   PICTURE : maximum
   COLOR : center
   HUE : +4 steps
   Signal : off
3. Set to P & P mode, set to service mode.
4. Connect an oscilloscope between pin ③ of CN702 (A board) connecter and ground.
5. Select " 2103-1-03 SCOL, -04 SHUE ", and adjust them to have VB1 ≦ VB4 and VB2 ≦ VB3 in the waveform levels.
6. Select " 2103-2-03 SCOL, -04 SHUE ", and adjust them to have VB1 ≦ VB4 and VB2 ≦ VB3 in the waveform levels.
7. Write the data into memory.
   MUTING → ENTER

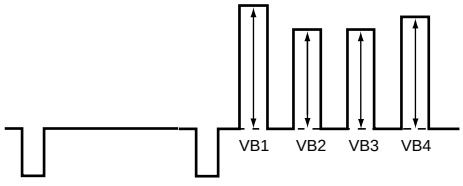


Fig. 4-4

SECTION 5

SAFETY RELATED ADJUSTMENTS

[D BOARD]

5-1. HV REGULATION CIRCUIT CHECK AND ADJUSTMENT

When replacing the following components marked with ◪ on the schematic diagram always check HV regulation, and if necessary re-adjust.

⊠: VR8001

◪: C8079, C8083, C8090, C8129, D8013, D8015
D8038, D8043
IC8006
Q8021, R8055, R8099, R8102, R8128, R8129, R8131, R8139, R8140, R8142, R8153, R8163, R8223, R8230
T8004 (LOT), T8005 (FBT)
HV block, D board

OPERATION CHECK

1. Receive the all white signal.
2. Set PIC MAX/BRT CENT.
3. Confirm that the voltage between CN8015 ① PIN and GND is less than 7.80VDC.

HV REGULATION ADJUSTMENT

1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.
2. Power on the set.
3. Repeat steps 1 and 2 as above.
4. Confirm that the static voltmeter reading is 31.0 ± 0.4V.
5. If not, adjust with VR8001 to the specified value.
6. After adjustment, put the VR cover on VR8001 as shown below and apply sufficient amount of epoxy resin around VR8001.

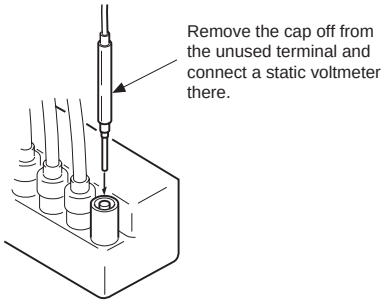


Fig. 4-1

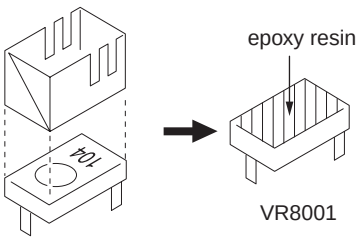


Fig. 4-2

5-2. HV HOLD DOWN CIRCUIT OPERATION CHECK AND ADJUSTMENT

When replacing the following components marked with ◪ on the schematic diagram always check hold-down voltage and if necessary re-adjust.

⊠: VR8002

◪: C8054, C8086, C8088, C8100, C8104, C8118, C8123, C8124
D8019, D8020, D8022, D8028, D8036
FB8001
IC8008
Q8035, Q8038
R8035, R8043, R8159, R8166, R8171, R8196, R8201
T8004 (LOT), T8005 (FBT)
HV block, D board

OPERATION CHECK

1. Receive the dot signal.
2. Set PIC MIN/BRT MIN.
3. Confirm that the voltage between cathode of D8038(JW171) and GND is more than 23.0V DC.
4. Using an external DC Power supply, apply the voltage shown below between cathode of D8038(JW171) on "D" and GND, then confirm that the HV-Prot circuit works.(Raster disappears.)
   Apply DC voltage: Less than 29.05V DC.

HV HOLD-DOWN ADJUSTMENT

1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.
2. Power on the set.
3. Connet an externel 10kΩ VR at CN8015 and adjust this VR so that the high voltoge is 34.50kV.
4. Adjust VR8002 to the point that the HV-Prot circuit works (Raster disappears) at 34.50 ± 0.50kV reading on the static voltmeter.
5. After adjustment, put the VR cover on VR8002 and apply sufficient amount of epoxy resin around VR8002 as the same manner for VR8001.

[G BOARD]

5-3. +B MAX VOLTAGE CONFIRMATION

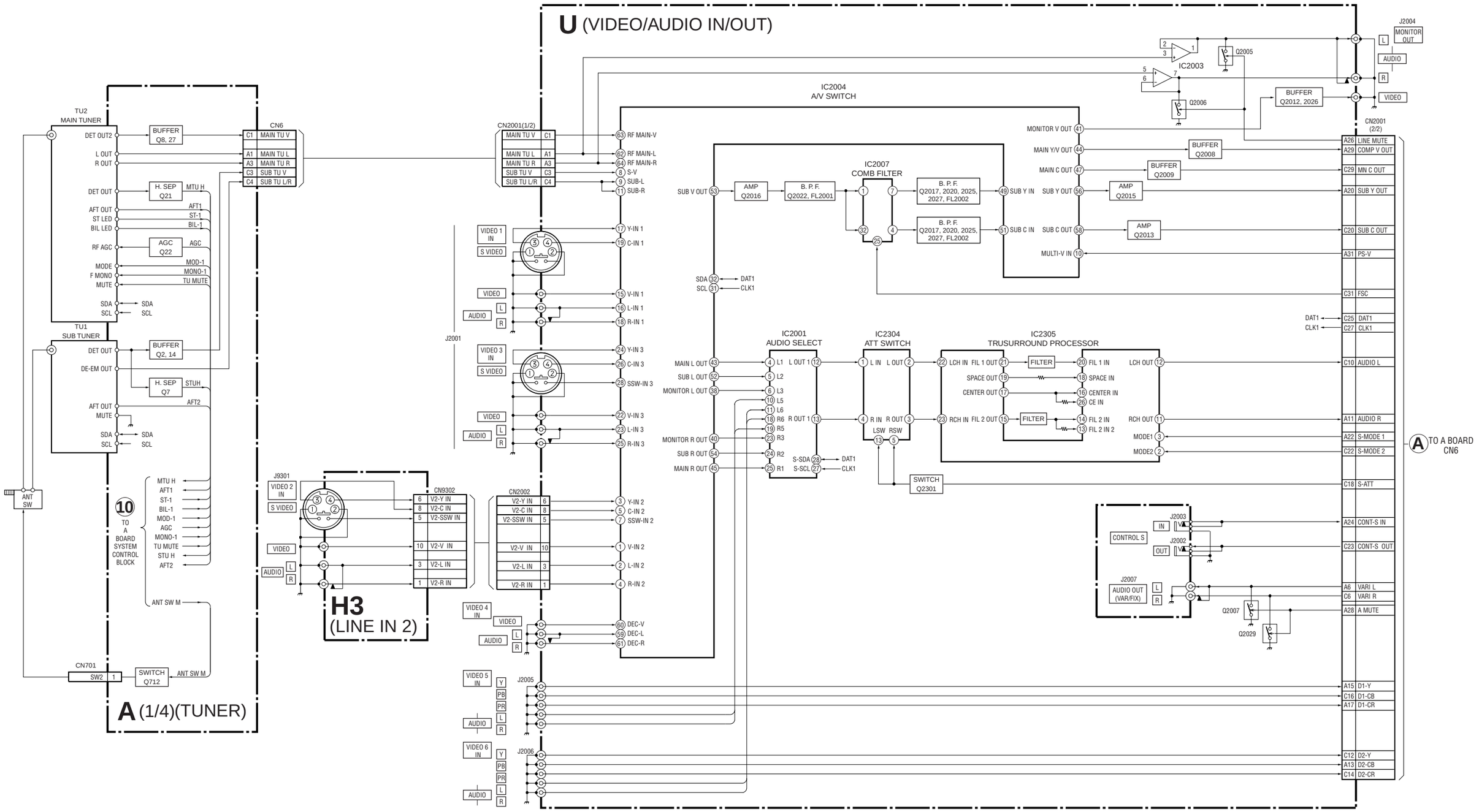
The following adjustments should always be performed when replacing IC501, R5032.

1. Supply 130VAC to variable autotransformer.
2. Receive dot signal pattern and set the PICTURE and BRIGHTNESS settings to their minimum.
3. Confirm the voltage of TP +B 135V is less than 137.0Vdc.
4. If step 4 not satisfied , replace IC501 and repeat above steps.

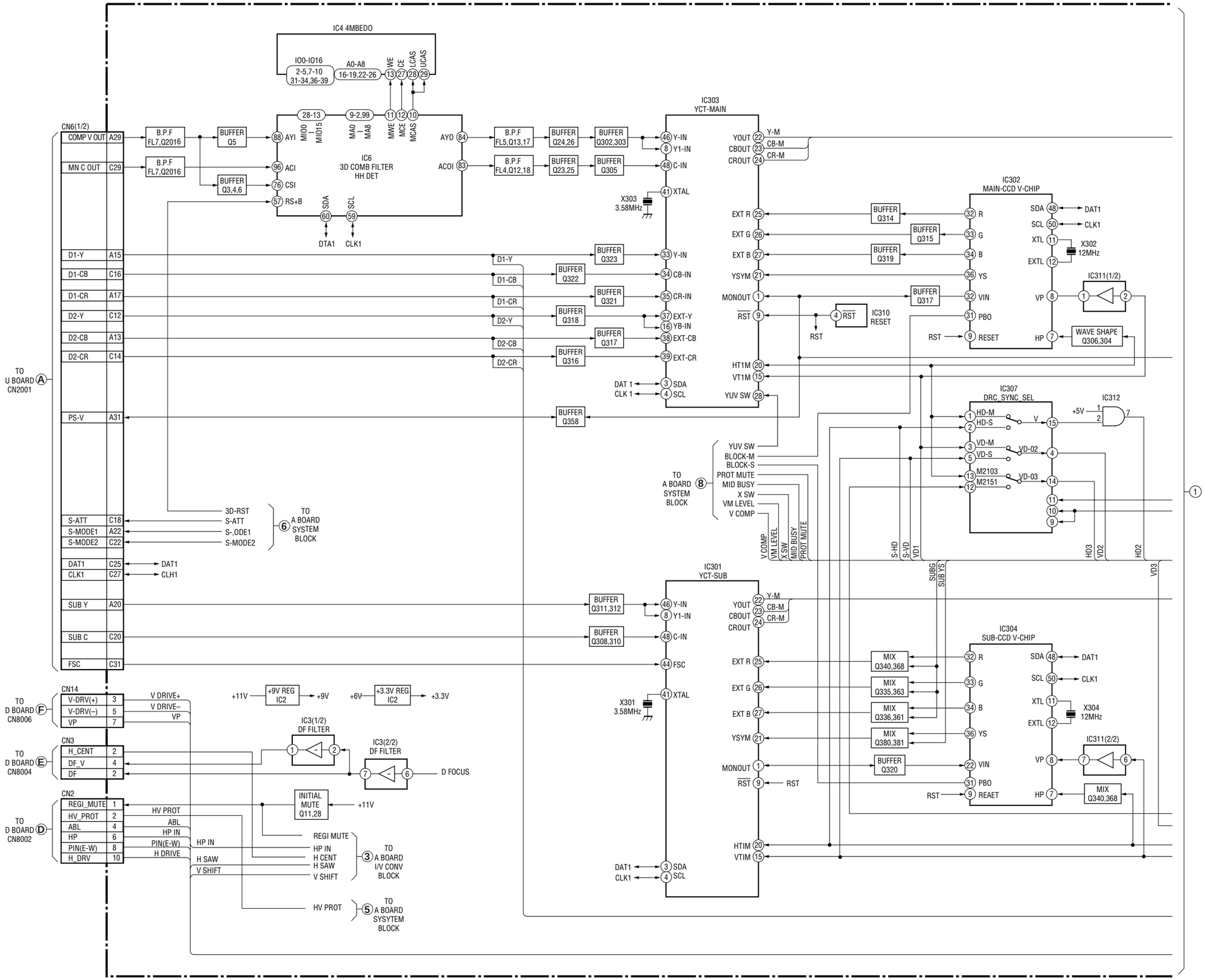
5-4. +B OVP CONFIRMATION

1. Add to low voltage power supply between to TP. 5001 and ground.
2. Supply 120VAC to variable autotransformer.
3. Power on the Set and receive dot signal pattern.
4. Set the PICTURE and BRIGHTNESS settings.
5. Check the OVP is activated.
   Operate :less than 2.50V

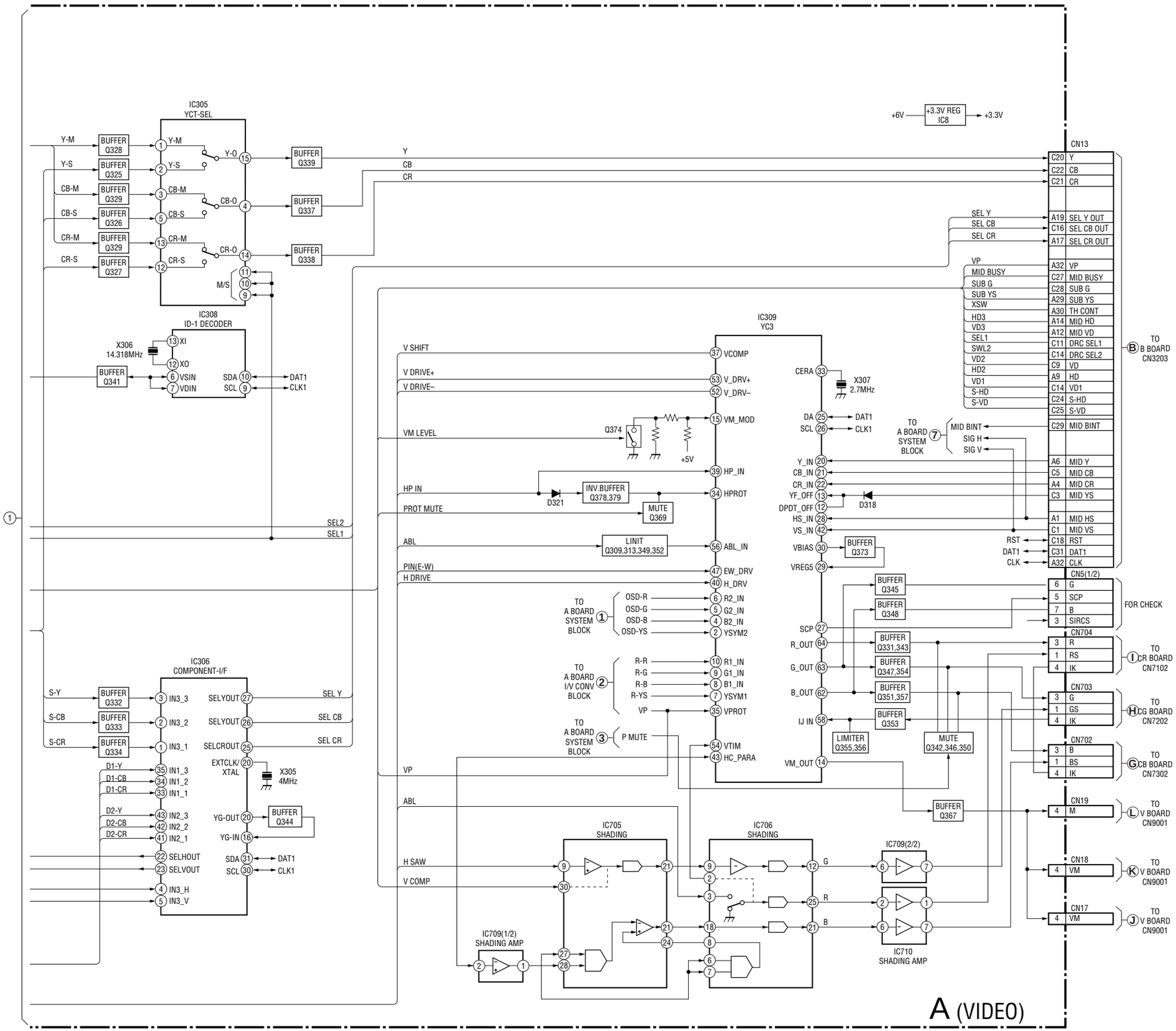
6-1. BLOCK DIAGRAM (1)



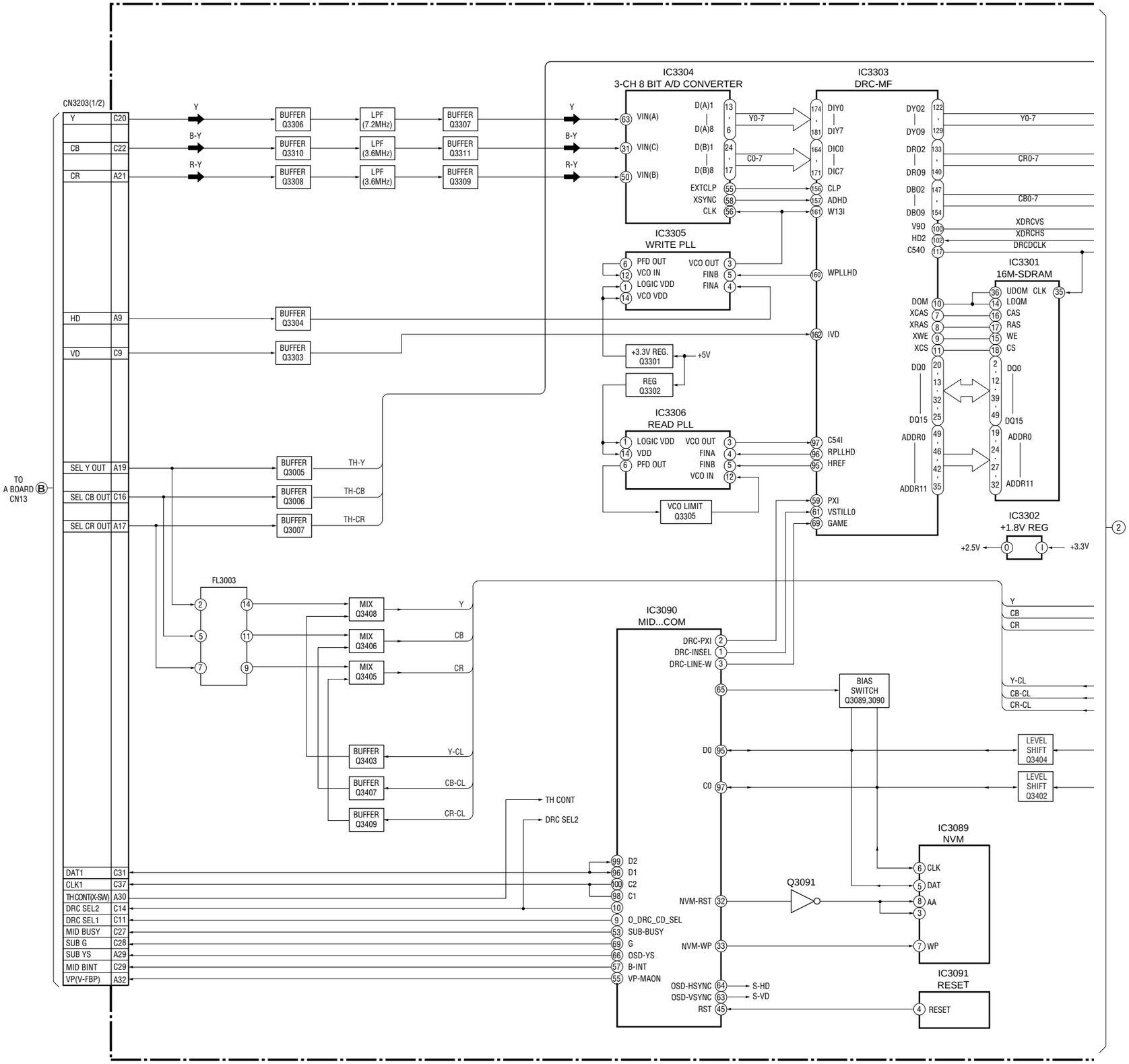
BLOCK DIAGRAM (2)



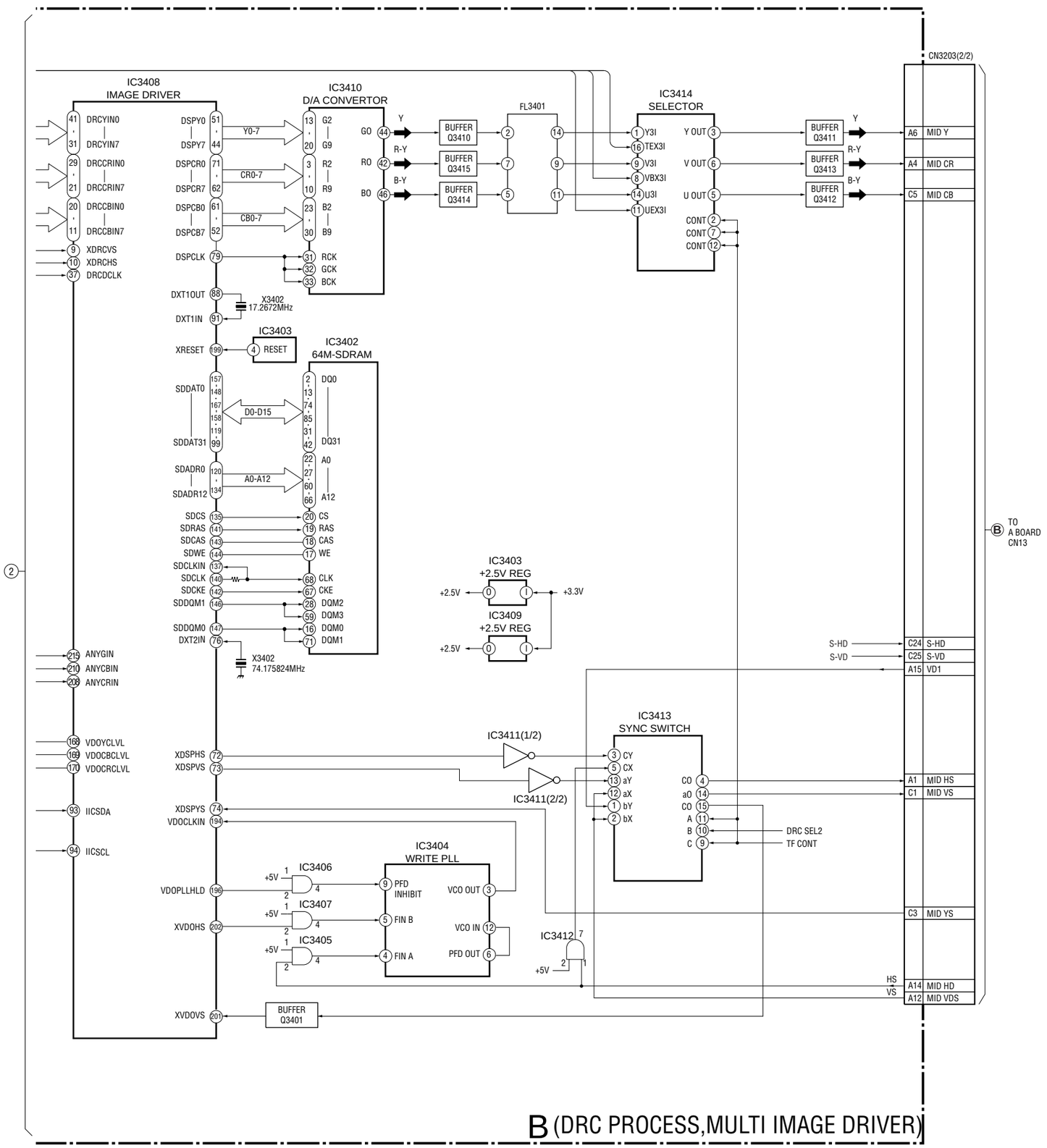
BLOCK DIAGRAM (3)



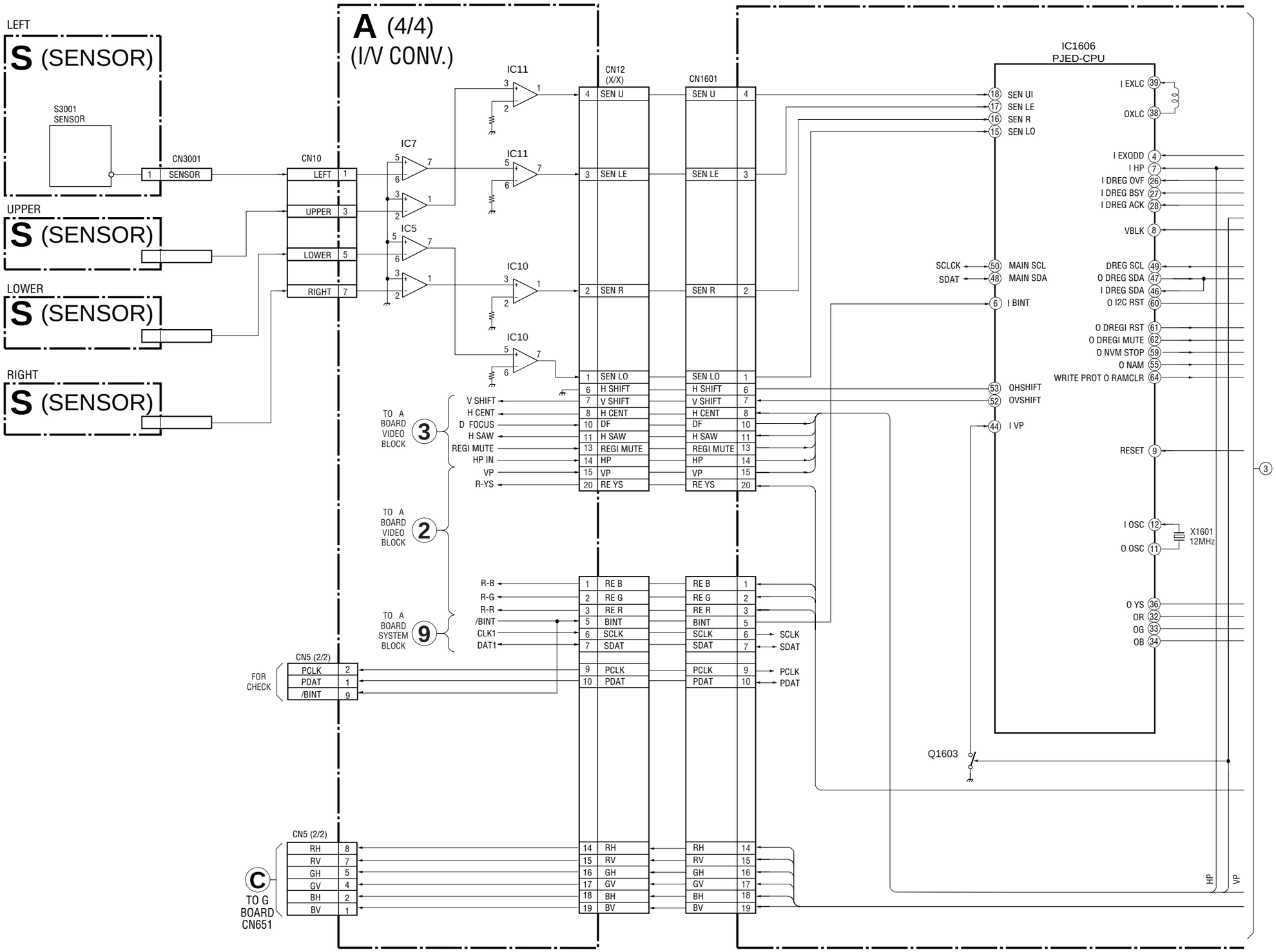
BLOCK DIAGRAM (4)



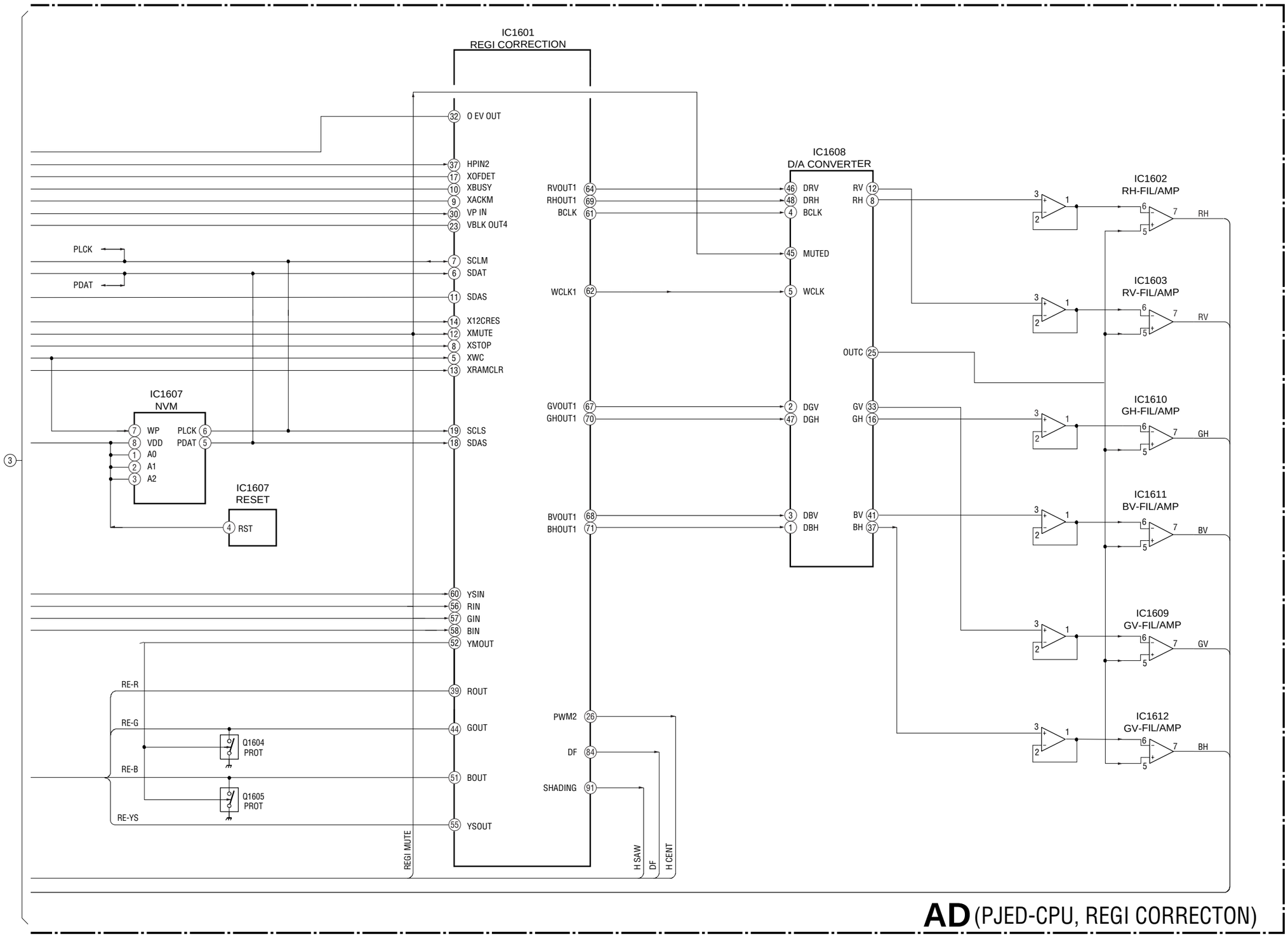
BLOCK DIAGRAM (5)



BLOCK DIAGRAM (6)

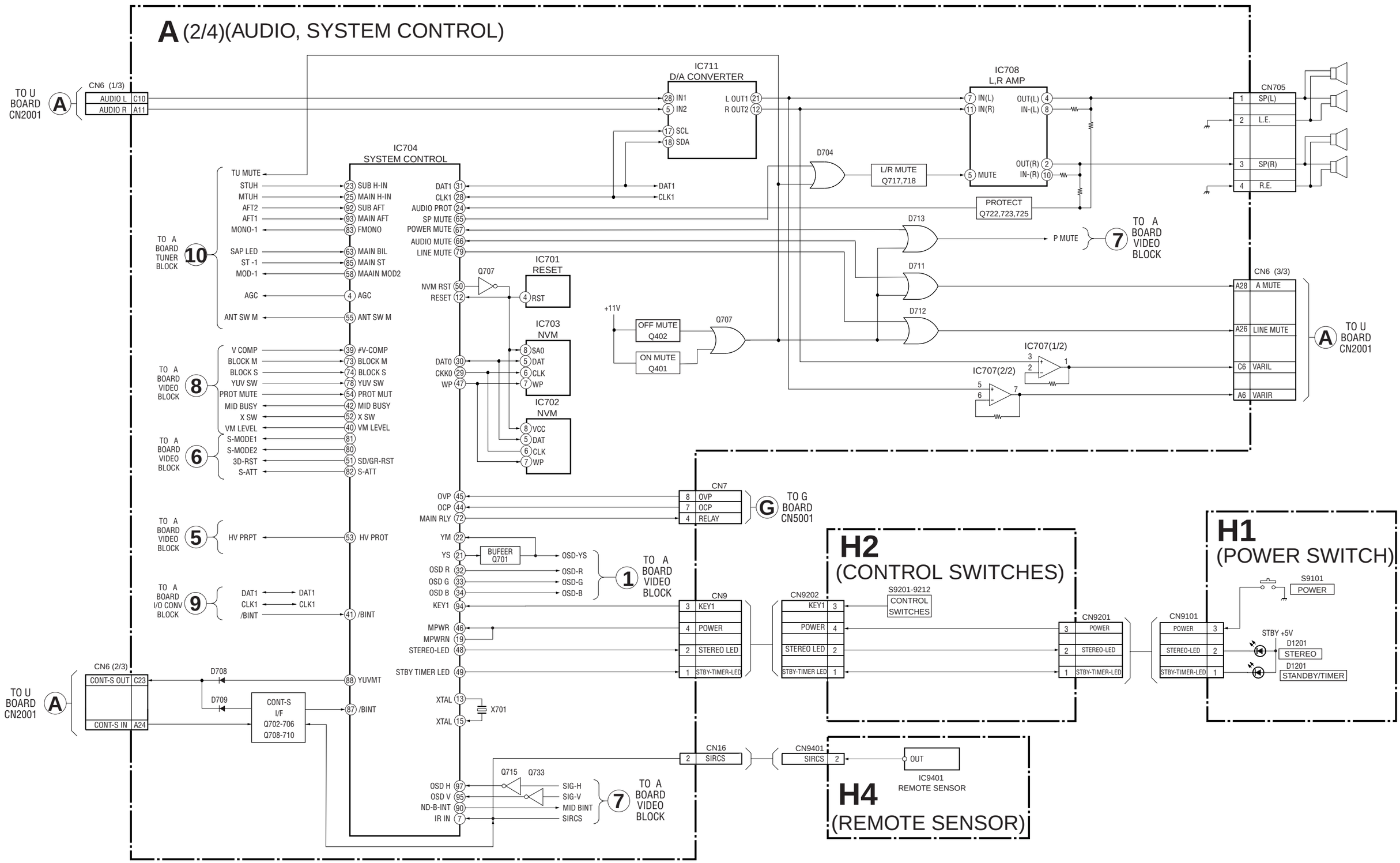


BLOCK DIAGRAM (7)

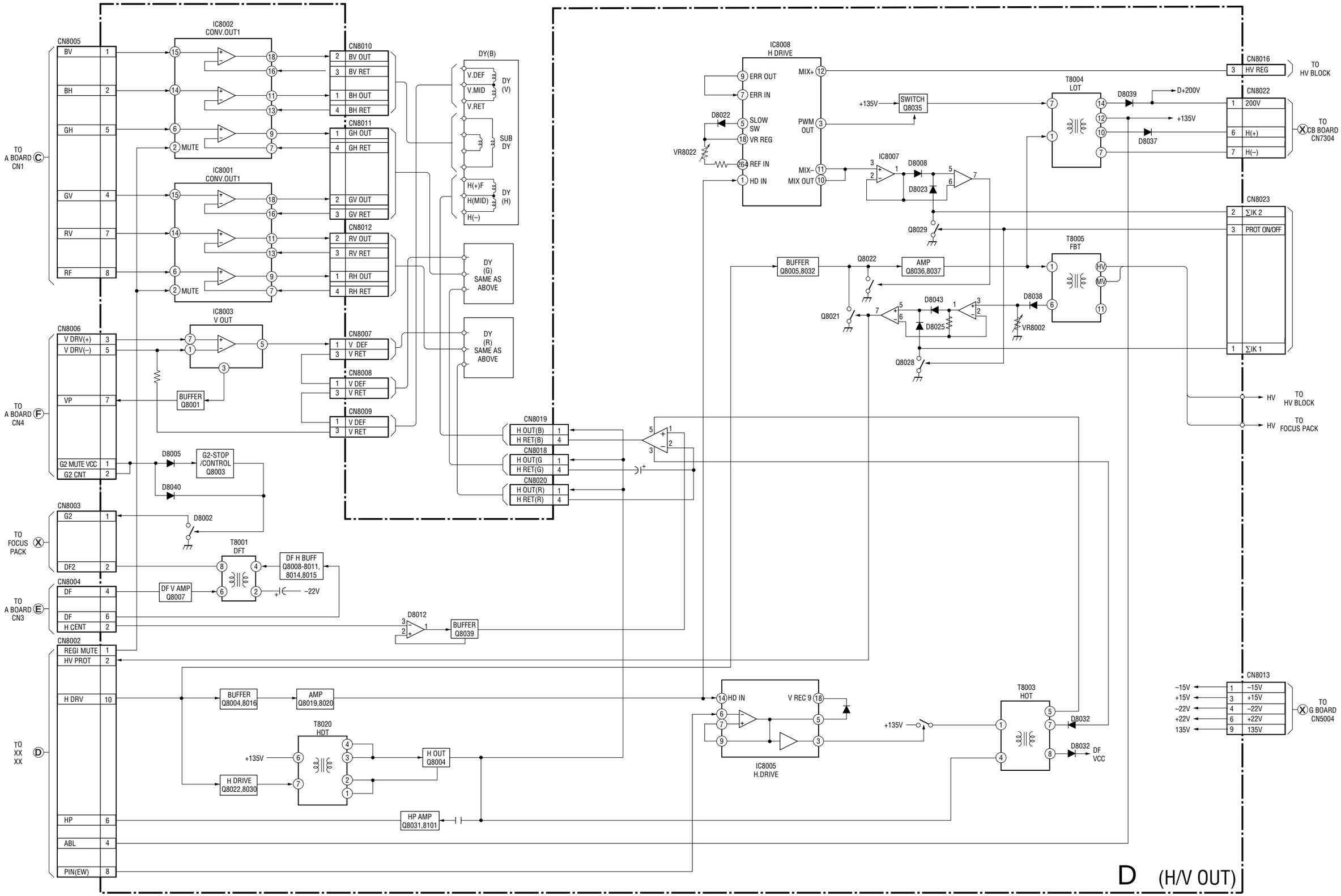


AD (PJED-CPU, REGI CORRECTON)

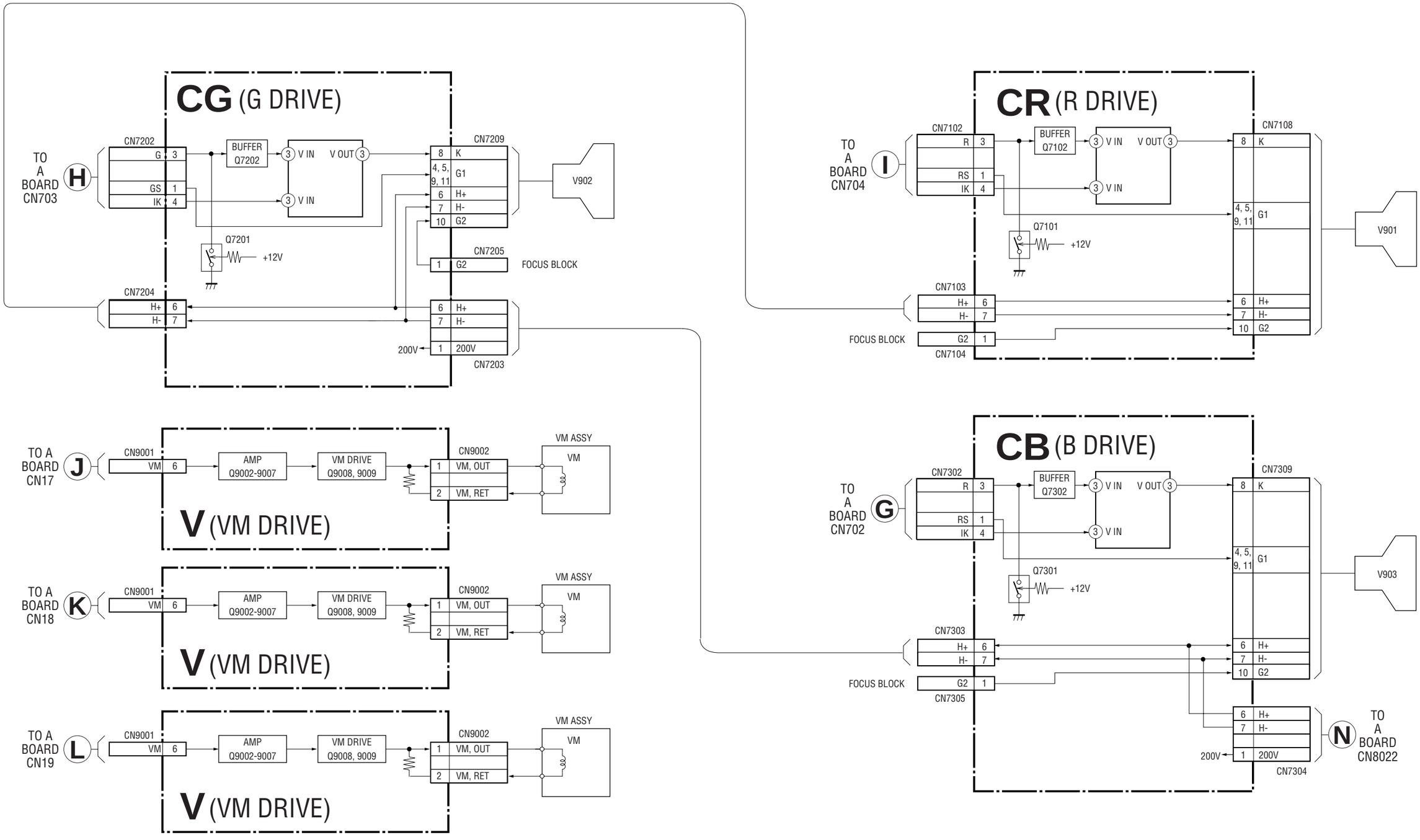
BLOCK DIAGRAM (8)



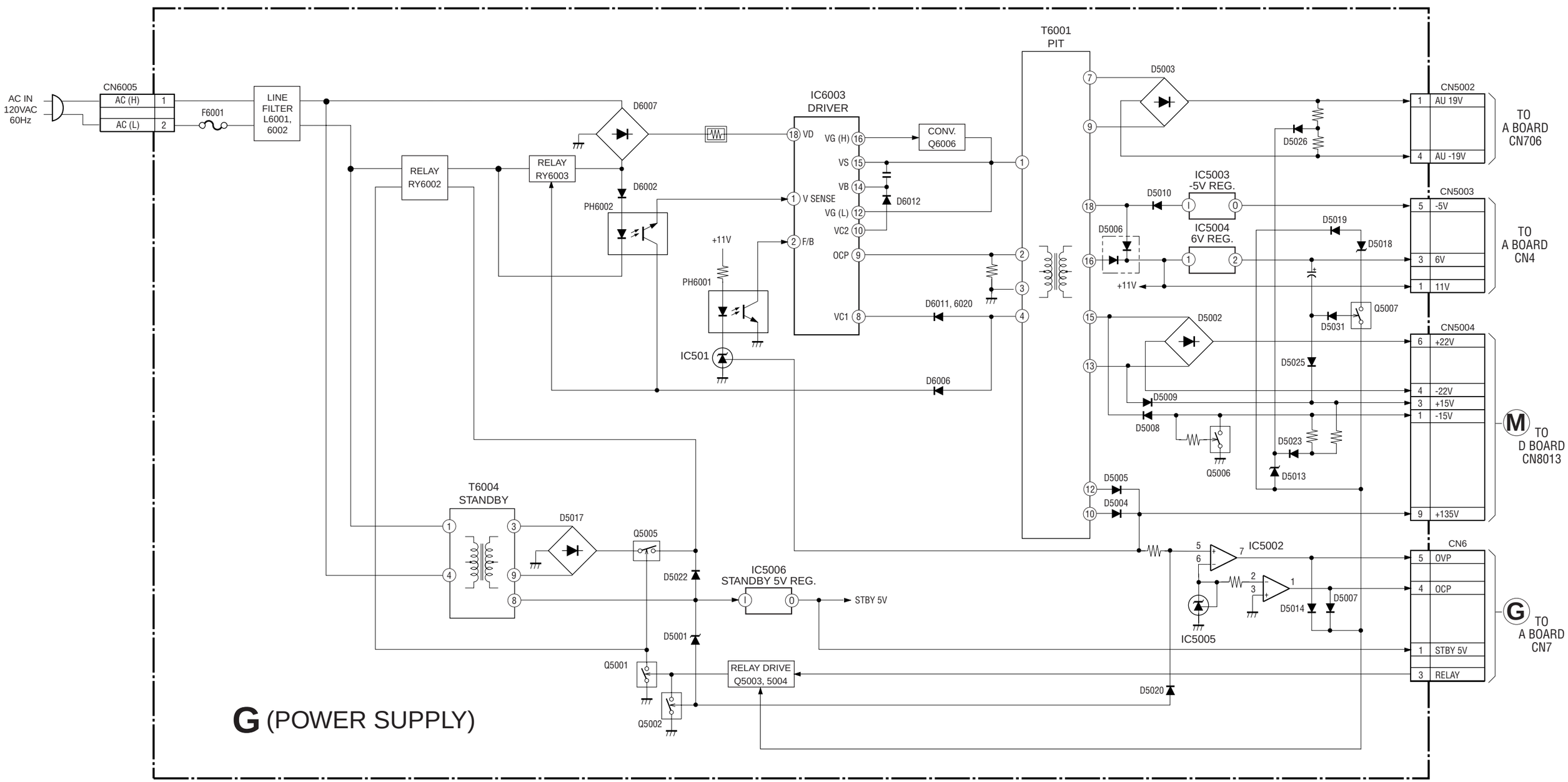
BLOCK DIAGRAM (9)



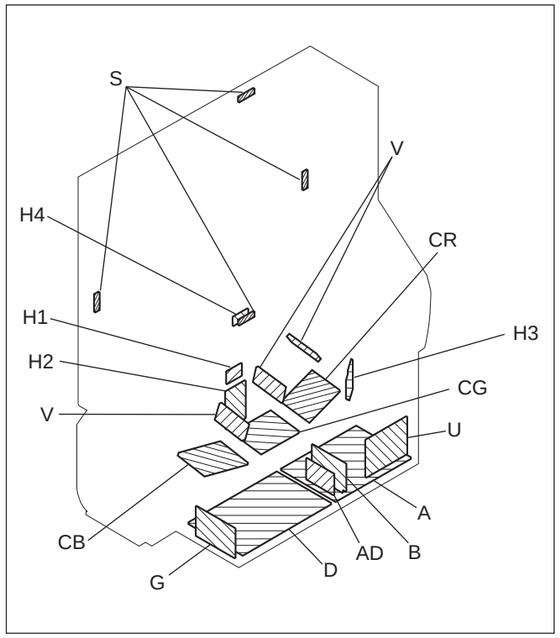
BLOCK DIAGRAM (10)



BLOCK DIAGRAM (11)



6-2. CIRCUIT BOARDS LOCATION



Note: The symbol ▬ display is on the component slde.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

The symbol ▬ indicate fast operating fuse. Replace only with fuse of same rating as maked.

Note: Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Le symbole ▬ indique une fusible a action rapide. Doit etre remplacee par une fusible de meme yaleur, comme maque.

6-3. SCHEMATIC DIAGRAMS

Note:
- Capacitors without voltage indication are all 50V.
- All resistors are in ohms.
  kΩ=1000Ω, MΩ=1000kΩ
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

Pitch : 5mm
Rating electrical power : 1/4 W

- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- △ : internal component.
- ▭ : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⏚ : earth-chassis.
- The components identified by ⧓ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
  Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪ , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⧓ and repeat the adjustment until the specified value is achieved. (Refer to VR8001 and VR8002 adjustment on Page 30.)
- Readings are taken with a NTSC color-bar signal input.
- Readings are taken with a 10MΩ digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
  ∗ : Measurement impossibility.

- Circled numbers are waveform references.
- ▬ : B+ bus.
- ▬ ▬ : B– bus.
- ⇨ : signal path.(RF)

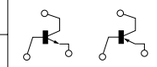
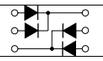
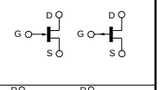
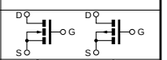
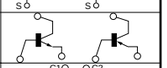
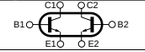
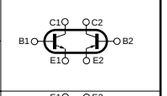
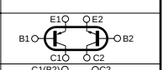
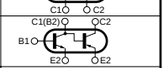
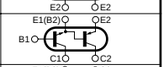
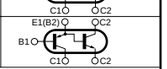
Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

- Divided schematic diagram
  Schematic diagrams of A, AD, B, D, G, and U boards are divided into several pieces. Information to where the line is to be connected is printed at the end of each.
  For example, [**TO A1/5,A2/5_1**] means the line is connected to Ref. No. 1 of A(1/5) and A(2/5) schematic diagrams.

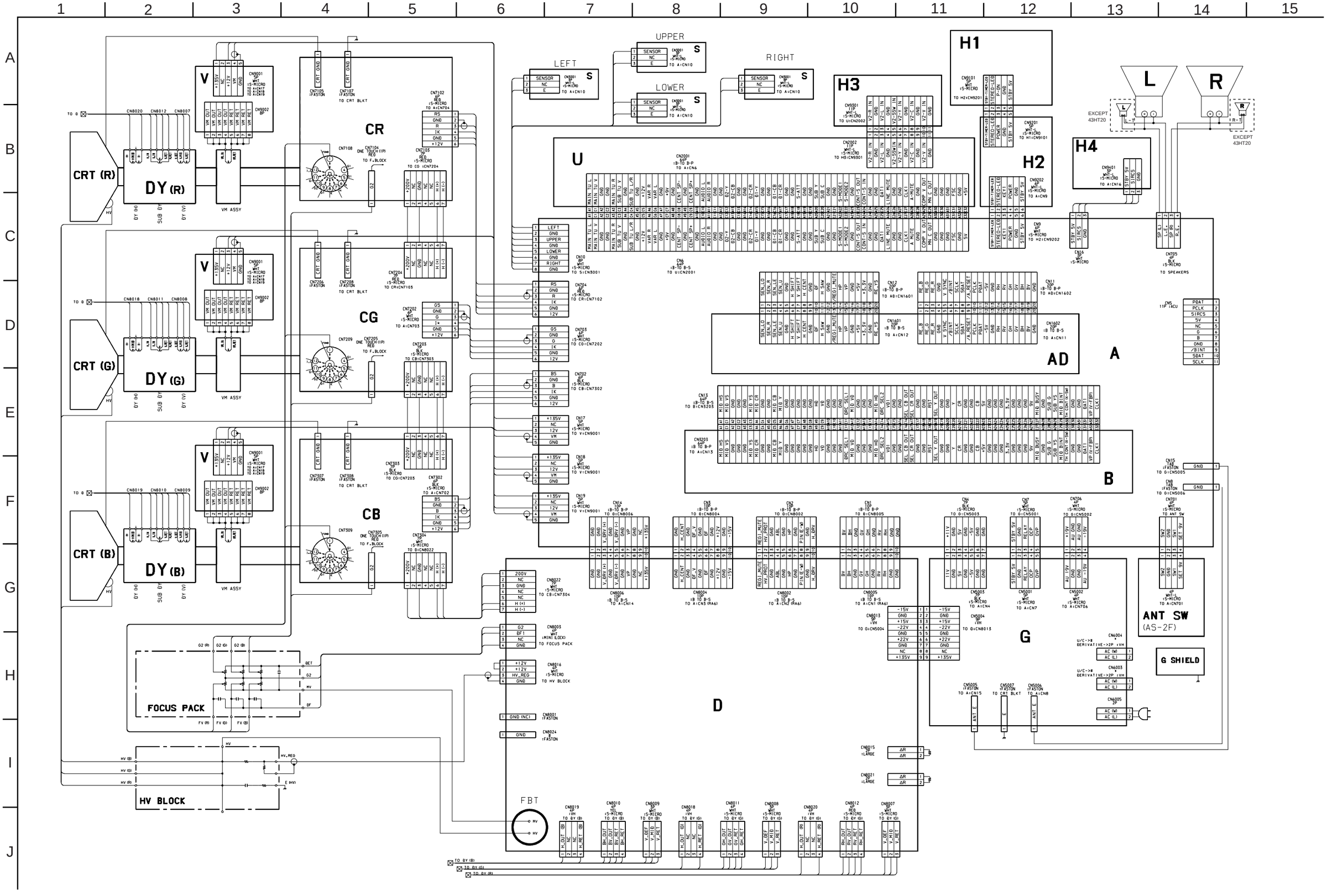
TO A1/5,A2/5_1
- Ref. No.
- Name of divided schematic diagram

Terminal name of semiconductors in silk screen printed circuit (∗)

	Device	Printed symbol	Terminal name	Circuit
①	Transistor	T	Collector / Base T Emitter	
②	Transistor	▬	Collector / Base ▬ Emitter	
③	Diode	⊓	Cathode ▬ Anode	
④	Diode	T	Cathode / Anode T (NC)	
⑤	Diode	▬	Cathode / Anode ▬ (NC)	
⑥	Diode	T	Common / Anode T Cathode	
⑦	Diode	▬	Common / Anode ▬ Cathode	
⑧	Diode	T	Common / Anode T Anode	
⑨	Diode	▬	Common / Anode ▬ Anode	
⑩	Diode	T	Common / Cathode T Cathode	
⑪	Diode	▬	Common / Cathode ▬ Cathode	
⑫	Diode	▮	Anode Anode Cathode ▮ Cathode Anode Anode	
⑬	Transistor (FET)	▮	Drain ▮ Source / Gate	
⑭	Transistor (FET)	⊢	Drain ▮ Source / Gate	
⑮	Transistor (FET)	▮	□ Source □ Drain □ Gate	
⑯	Transistor	▮	□ Emitter □ Collector □ Base	
⑰	Transistor	⊢⊣	C2 B1 E1 / E2 B2 C1	
⑱	Transistor	⊢⊣	C1 B2 E2 / E1 B1 C2	
⑲	Transistor	▬	C1 B2 E2 / E1 B1 C2	
⑳	Transistor	▬	C1 B2 E2 / E1 B1 C2	
㉑	Transistor	▬	E2 B1 E1 / C2 C1(B2)	
㉒	Transistor	▬	(B2) / B1 E1 E2 / C1 C2	
㉓	Transistor	▬	(B2) / E2 E1 B1 / C2 C1	
–	Discrete semiconductot			

(Chip semiconductors that are not actually used are included.)

Ver.1.5


CRT (R)
DY (R)
CRT (G)
DY (G)
CRT (B)
DY (B)
VM ASSY
CR
CG
CB
FOCUS PACK
HV BLOCK
UPPER
LOWER
LEFT
RIGHT
U
H1
H2
H3
H4
L
R
EXCEPT 43HT20
A
B
D
G
AD
ANT SW
(AS-2F)
G SHIELD
FBT

A (1/9)

(TUNER, AREG
I/V CONVERTER)

TU1 BTF-FA401 SUB-TUNER

TU2 BTF-WA412 MAIN-TUNER

IC1 BA033T

IC2 PQ09RF21

IC3 NJM2068V-TE2 DF FILTER

IC5 NJM4558M-TE2

IC7 NJM4558M-TE2

IC9 NJM78M12FA

IC10 NJM4558M-TE2

IC11 NJM4558M-TE2

IC12 NJM2395AF05

Q2 2SA1037AK

Q7 2SA1037AK

Q8 2SA1037AK

Q11 2SC2412K

Q14 2SC2412K

Q21 2SA1037AK

Q22 2SC2412K

Q27 2SC2412K

Q28 2SA1037AK

TO G BOARD CN5003

TO D BOARD CN8006

TO D BOARD CN8004

TO D BOARD CN8002

TO D BOARD CN8005

TUNER MUTE TO A1/9,A7/9,AA9/9_4

IIC-1 TO A1/9,A2/9,A3/9, A4/9,A5/9,A6/9,A7/9,A9/9_3

TU CONT TO A1/9,A7/9_2

TU OUT TO A1/9,A2/9_1

TO A1/9,A7/9_5 S-TU-H

TO A1/9,A7/9_6 M-TU-H

TO A1/9,A5/9_57 V SHIFT

TO A1/9,A8/9_56 H SAW

TO A1/9,A5/9_55 R-SIG

TO A1/9,A2/9,A5/9_33 VP

TO A1/9,A2/9,A7/9_29 /BINT

TO A1/9,A7/9_31 3D/RST

TO A1/9,A2/9_24 PCLK

TO A1/9,A2/9_23 PDAT

TO AD BOARD CN1601

TO AD BOARD CN1602

TO V BOARD CN9001

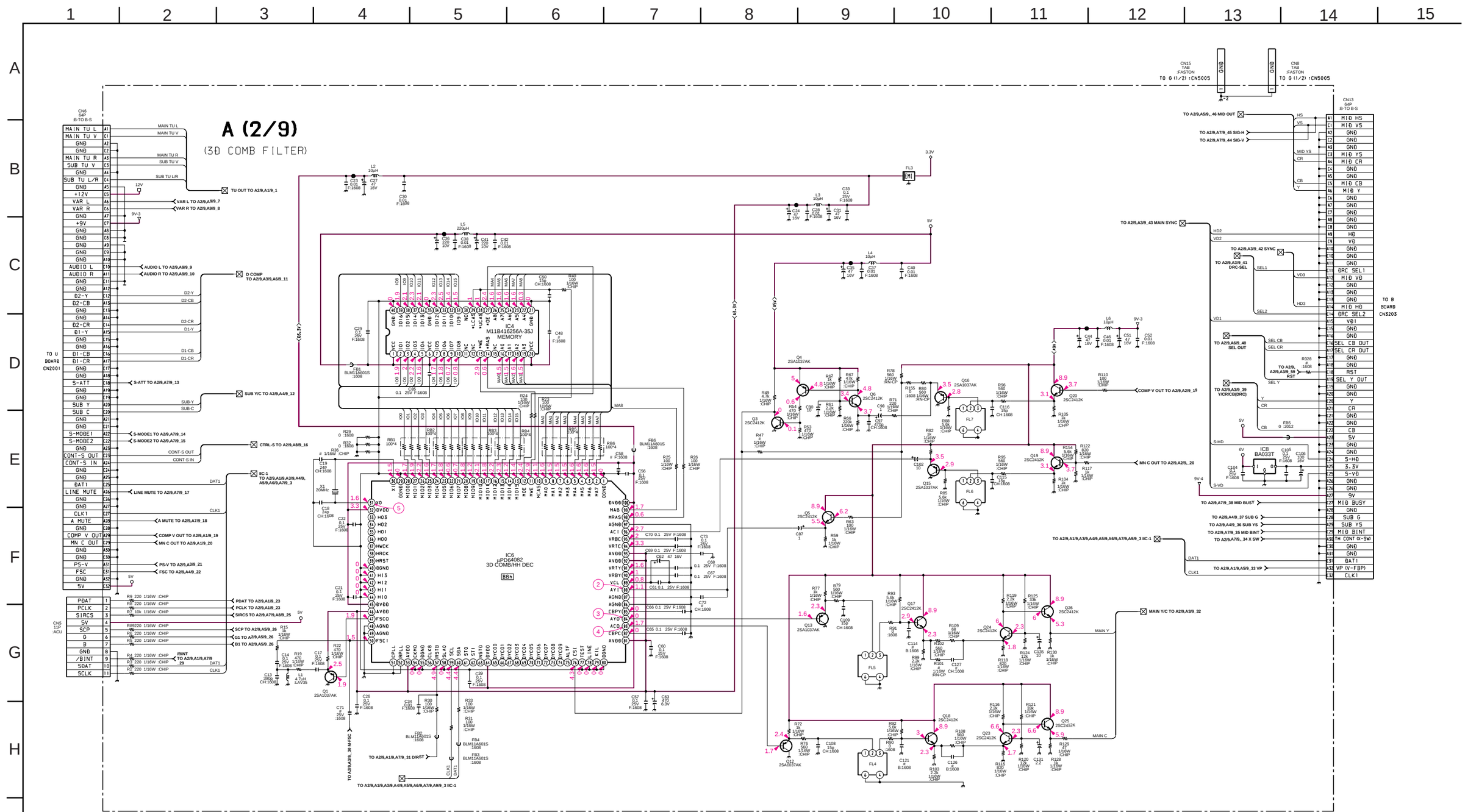
TO V BOARD CN9001

TO V BOARD CN9001

TO S BOARD CN3001

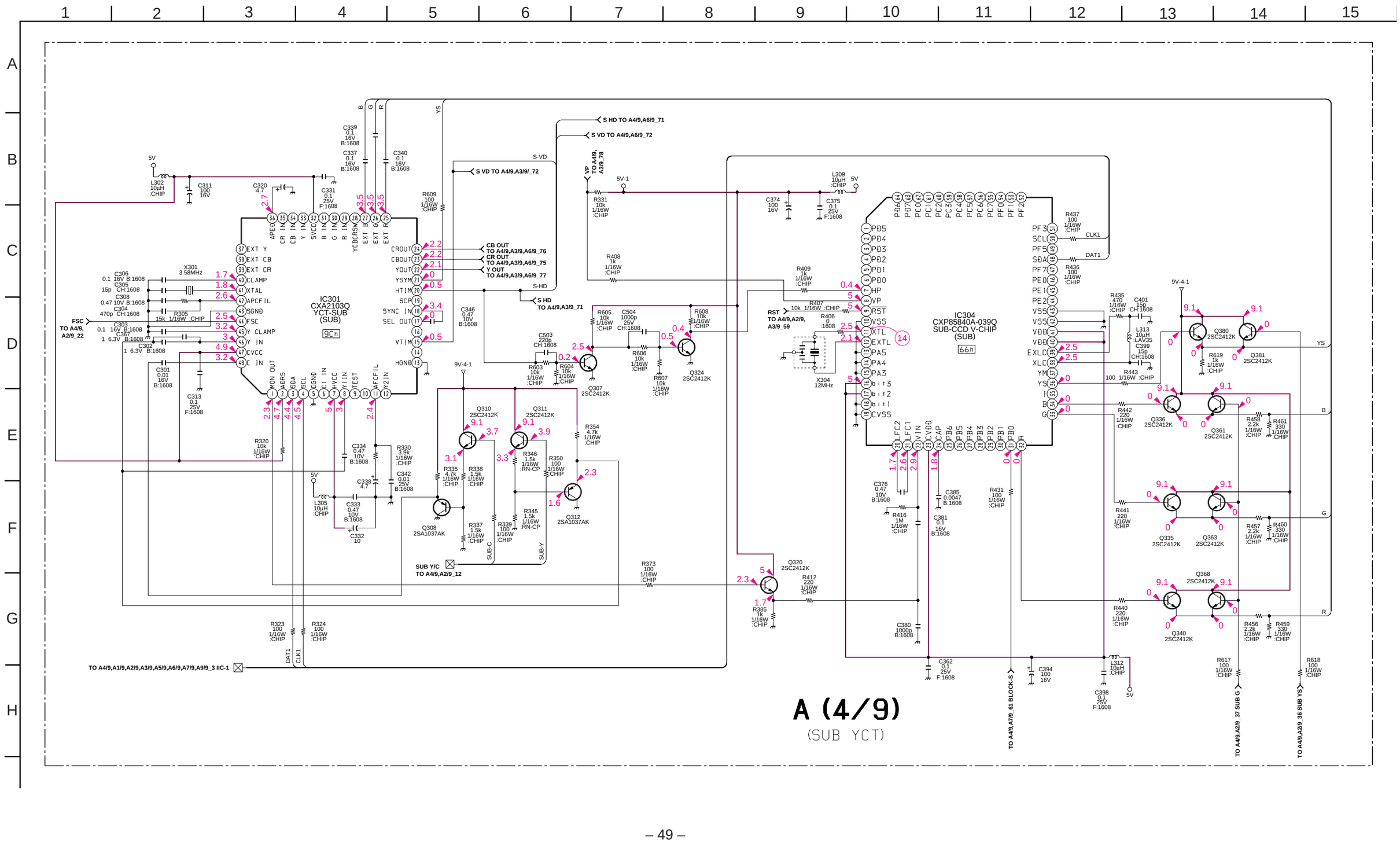
A (2/9)

(3D COMB FILTER)



A (3/9)

(MAIN YCT)


IC301
CXA2103Q
YCT-SUB
(SUB)
IC304
CXP85840A-039Q
SUB-CCD V-CHIP
(SUB)
A (4/9)
(SUB YCT)
S HD TO A4/9,A6/9_71
S VD TO A4/9,A6/9_72
S VD TO A4/9,A3/9/_72
CB OUT
TO A4/9,A3/9,A6/9_76
CR OUT
TO A4/9,A3/9,A6/9_75
Y OUT
TO A4/9,A3/9,A6/9_77
S HD
TO A4/9,A3/9_71
SUB Y/C
TO A4/9,A2/9_12
FSC
TO A4/9,
A2/9_22
RST
TO A4/9,A2/9,
A3/9_59
TO A4/9,A1/9,A2/9,A3/9,A5/9,A6/9,A7/9,A9/9_3 IIC-1
TO A4/9,A7/9_61 BLOCK-S
TO A4/9,A2/9_37 SUB G
TO A4/9,A2/9_36 SUB YS
CLK1
DAT1
SUB-C
SUB-Y

1 2 3 4 5 6 7 8 9 10 11 12 13 14

A B C D E F G H I J

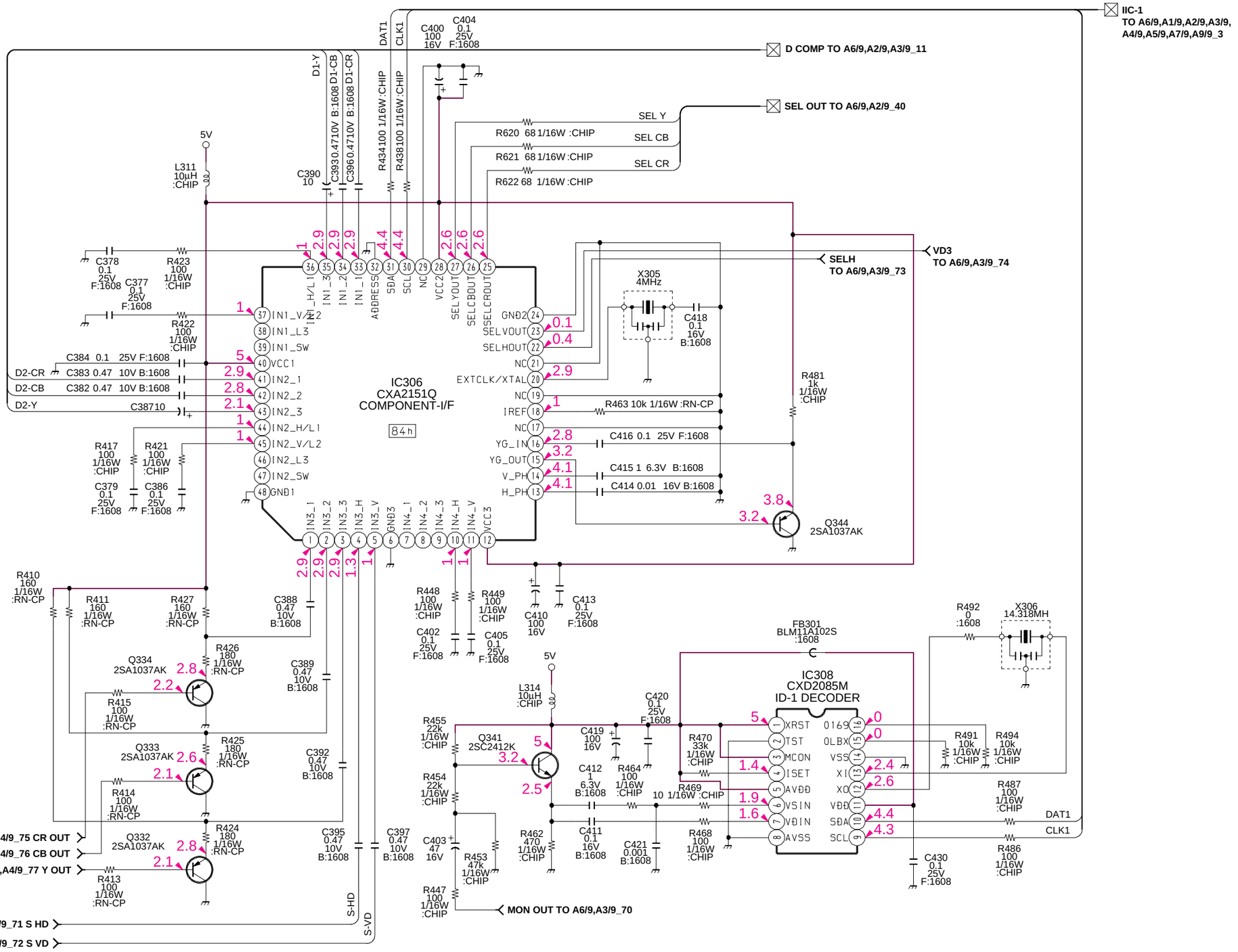
ABL TO A5/9,A1/9,A8/9_50
VTIM TO A5/9,A8/9_68
V DRIVE+ TO A5/9,A1/9_47
V DRIVE- TO A5/9,A1/9_48
PIN(E-W) TO A5/9,A1/9_4 52
HC PARA TO A5/9,A8/9_4 67
HP IN TO A5/9,A1/9_51
V SHIFT TO A5/9,A1/9_57
H DRIVE TO A5/9,A1/9_53
VP/2TO A5/9,A1/9,A2/9_33
MID OUT TO A5/9,A2/9_46
PROT MUTE TO A5/9,A7/9_66
SCP TO A5/9,A2/9_26
CLK1
DAT1
VM LEVEL TO A5/9,A7/9_65
VM TO A5/9,A1/9_54
TO A5/9,A1/9,A2/9,A3/9,A4/9,A6/9,A7/9,A9/9_3 IIC-1
TO A5/9,A2/9_27 G1
TO A5/9,A2/9_28 B1
OSD TO A5/9,A7/9_64
R-SIG TO A5/9,A1/9_55
DRV TO A5/9,A8/9_62
P MUTE TO A5/9,A7/9_63

IC309
CXA2150AQ
86h

A (5/9)
(Y/C JUNGLE)

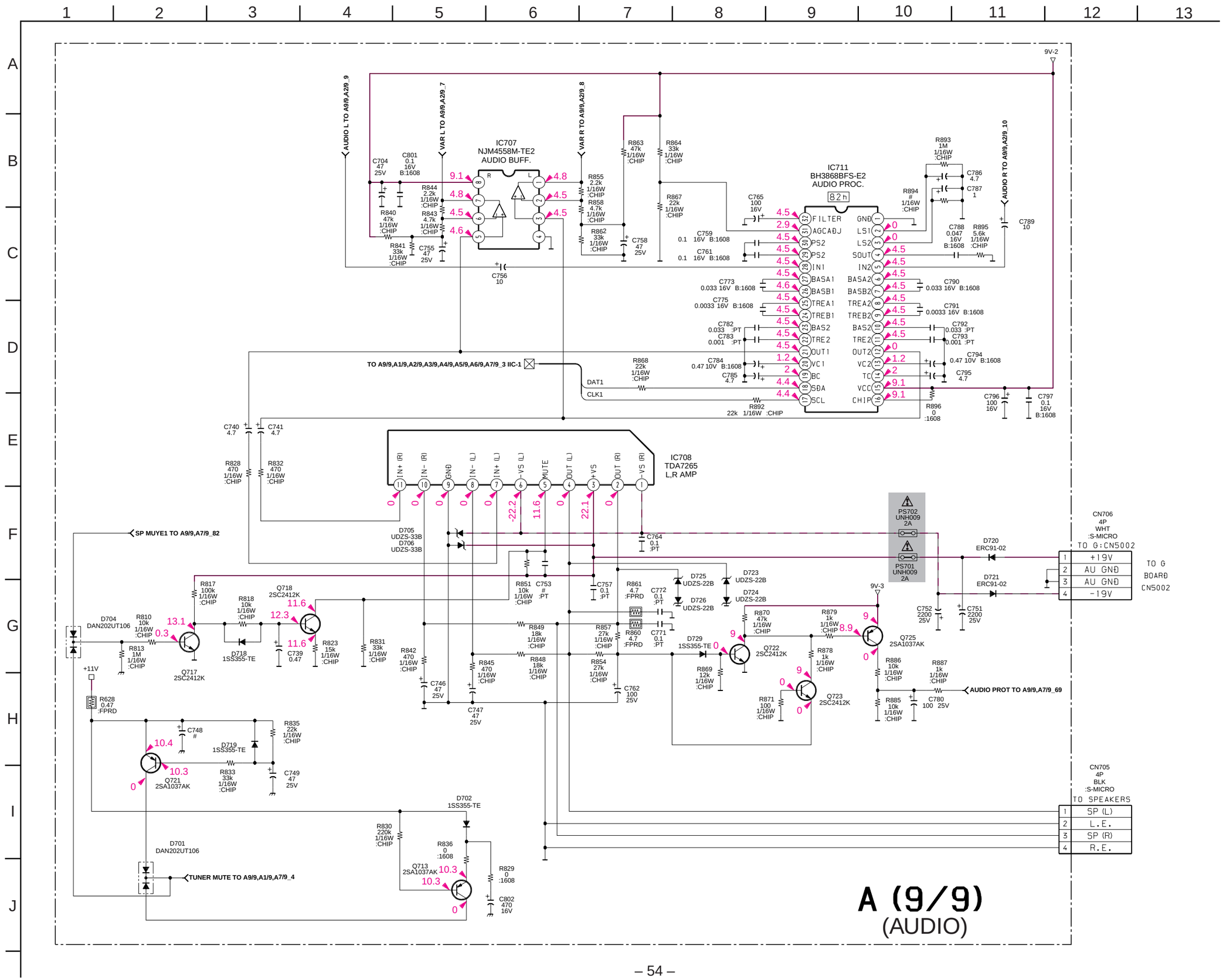
A (6/9)

(COMPONENT I/F, ID-1 DECODER)



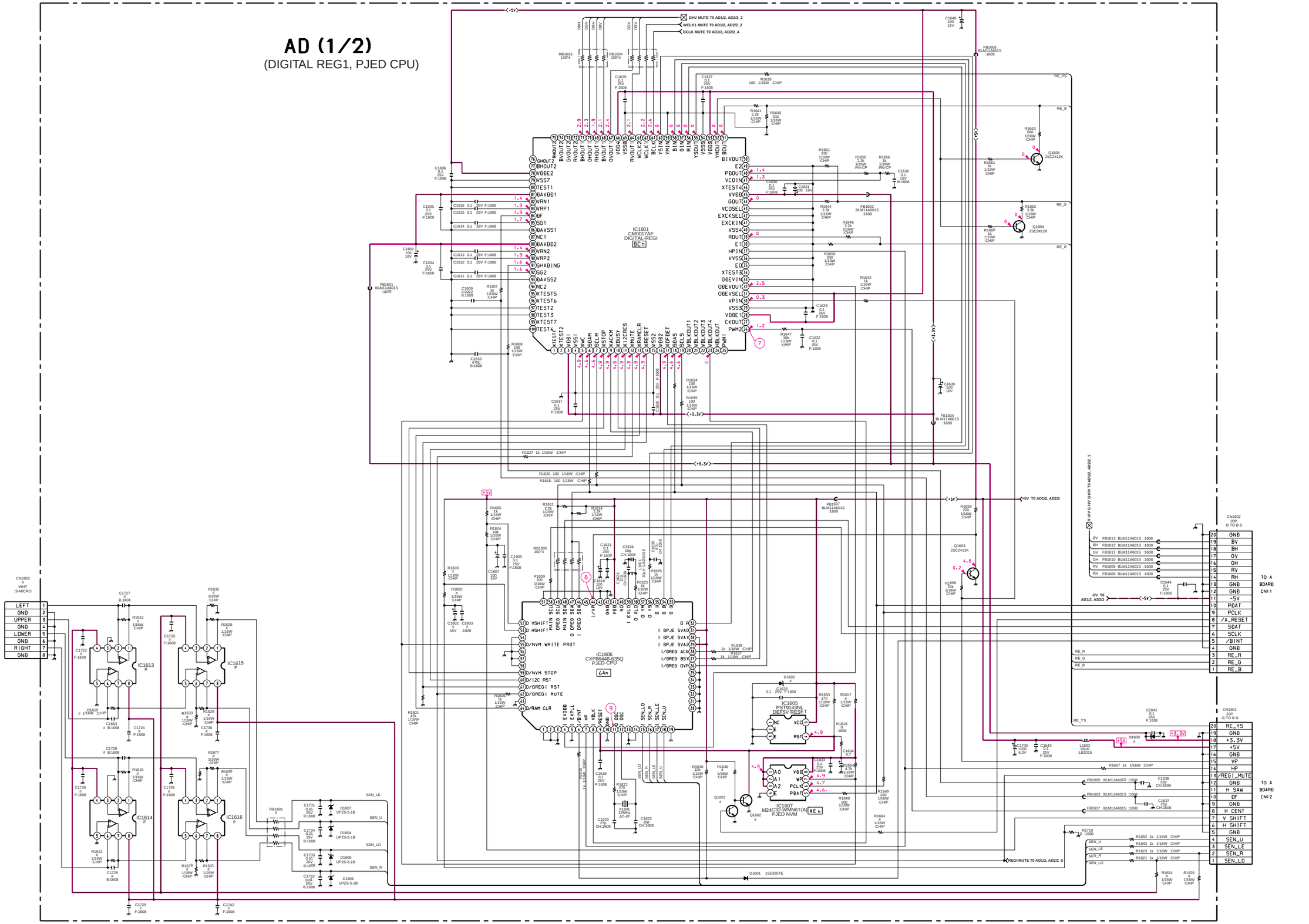
A (7/9)
(SYSTEM CONTROL)

A (8/9)
(SHADING)

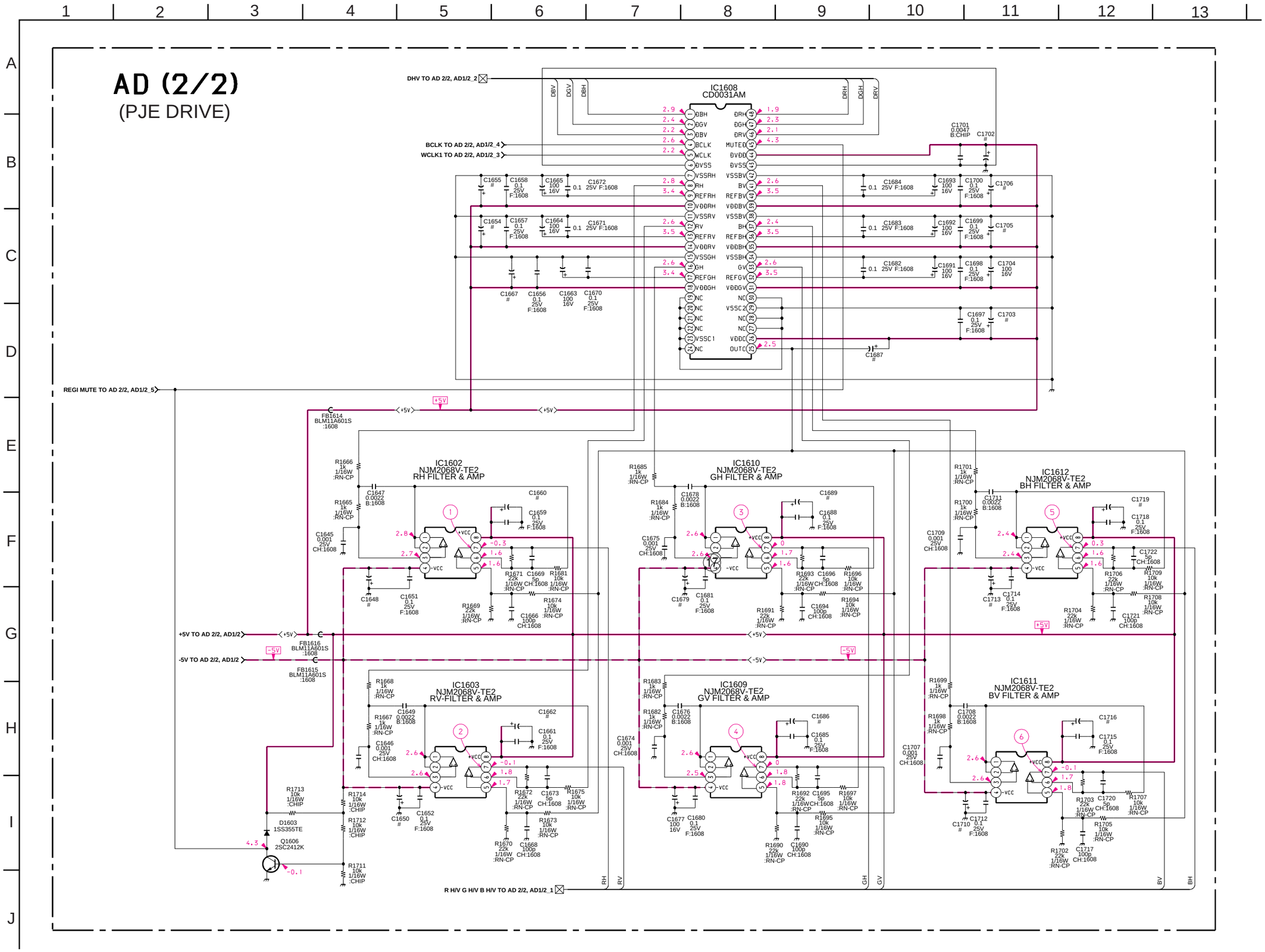

AUDIO L TO A9/9,A2/9_9
VAR L TO A9/9,A2/9_7
VAR R TO A9/9,A2/9_8
AUDIO R TO A9/9,A2/9_10
9V-2
IC707
NJM4558M-TE2
AUDIO BUFF.
IC711
BH3868BFS-E2
AUDIO PROC.
82h
IC708
TDA7265
L,R AMP
TO A9/9,A1/9,A2/9,A3/9,A4/9,A5/9,A6/9,A7/9_3 IIC-1
DAT1
CLK1
SP MUYE1 TO A9/9,A7/9_82
TUNER MUTE TO A9/9,A1/9,A7/9_4
AUDIO PROT TO A9/9,A7/9_69
9V-3
+11V
D704 DAN202UT106
D701 DAN202UT106
D705 UDZS-33B
D706 UDZS-33B
D718 1SS355-TE
D719 1SS355-TE
D720 ERC91-02
D721 ERC91-02
D722 2SC2412K
D723 UDZS-22B
D724 UDZS-22B
D725 UDZS-22B
D726 UDZS-22B
D729 1SS355-TE
D702 1SS355-TE
Q717 2SC2412K
Q718 2SC2412K
Q721 2SA1037AK
Q722 2SC2412K
Q723 2SC2412K
Q725 2SA1037AK
Q713 2SA1037AK
PS702 UNH009 2A
PS701 UNH009 2A
CN706 4P WHT :S-MICRO
TO G:CN5002
+19V
AU GND
AU GND
-19V
TO G BOARD CN5002
CN705 4P BLK :S-MICRO
TO SPEAKERS
SP (L)
L.E.
SP (R)
R.E.
A (9/9)
(AUDIO)

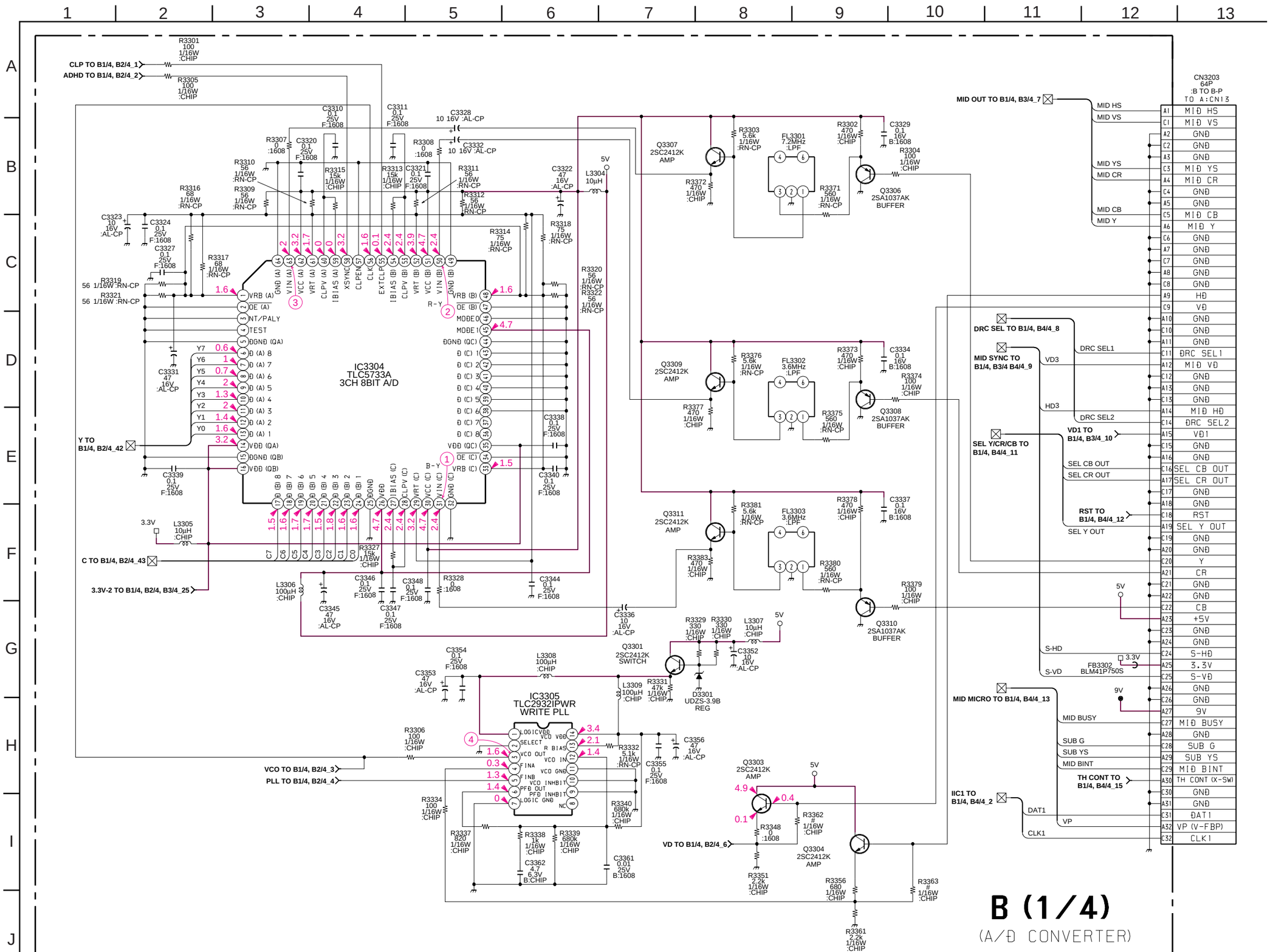
AD (1/2)

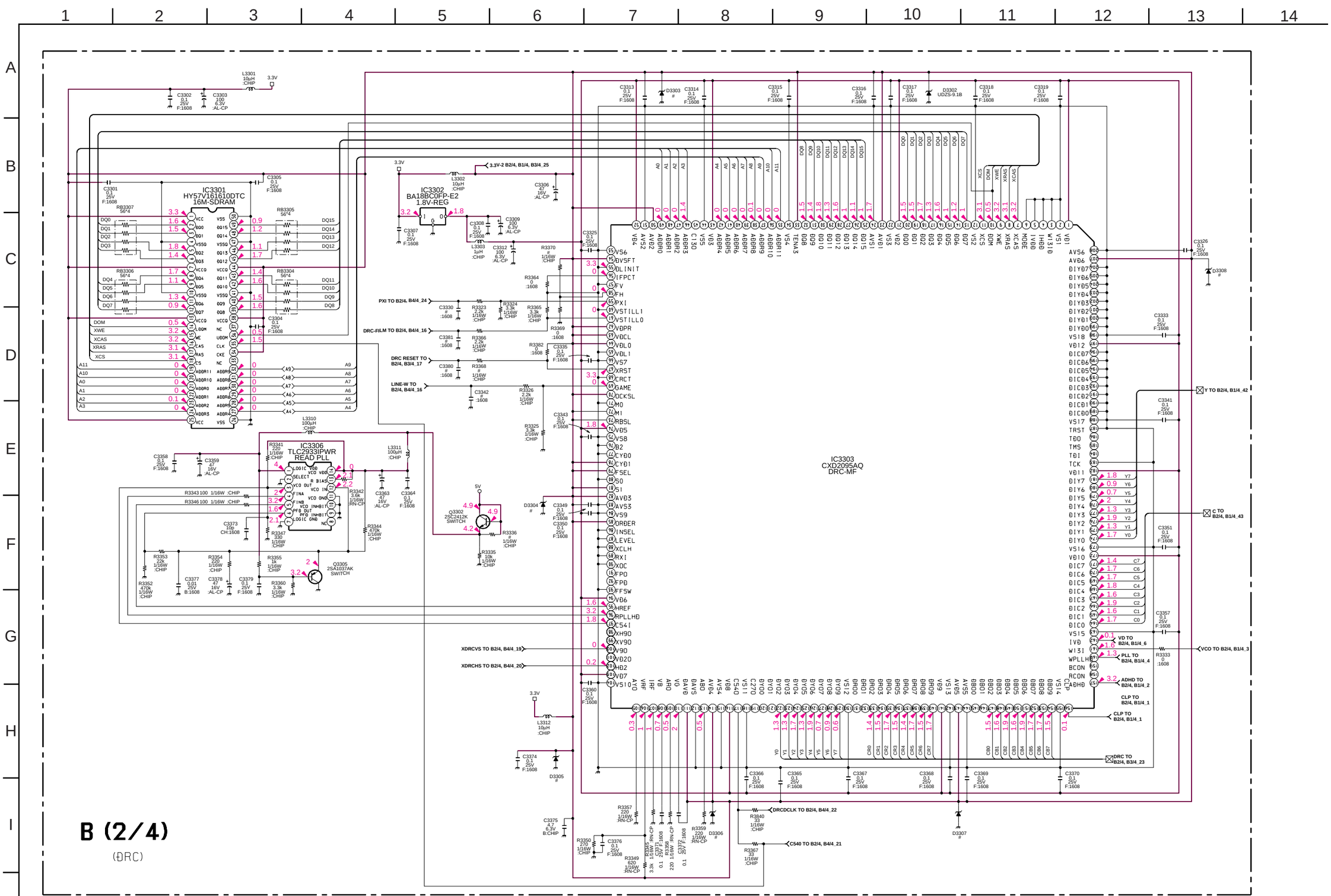
(DIGITAL REG1, PJED CPU)

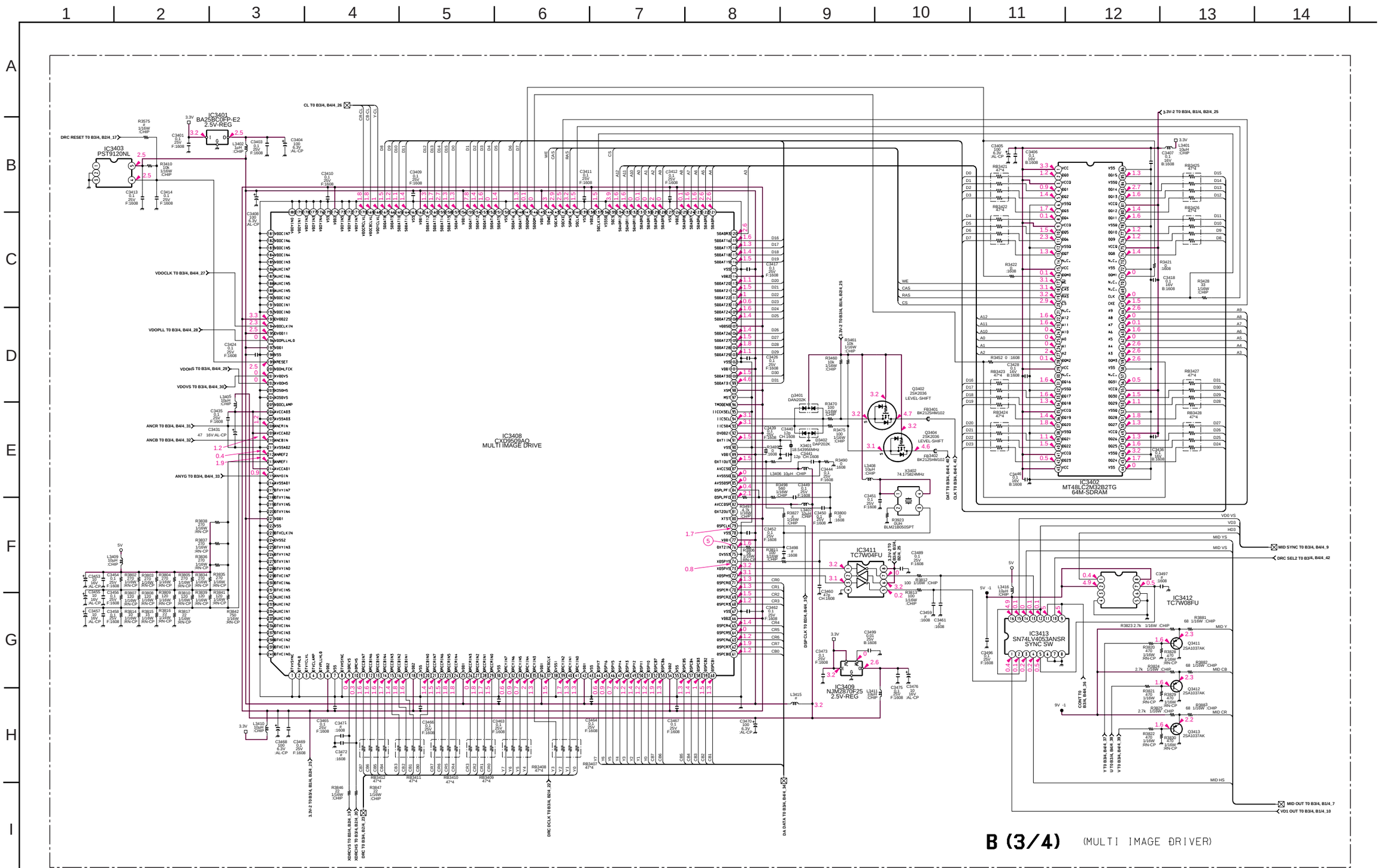


AD (2/2)
(PJE DRIVE)



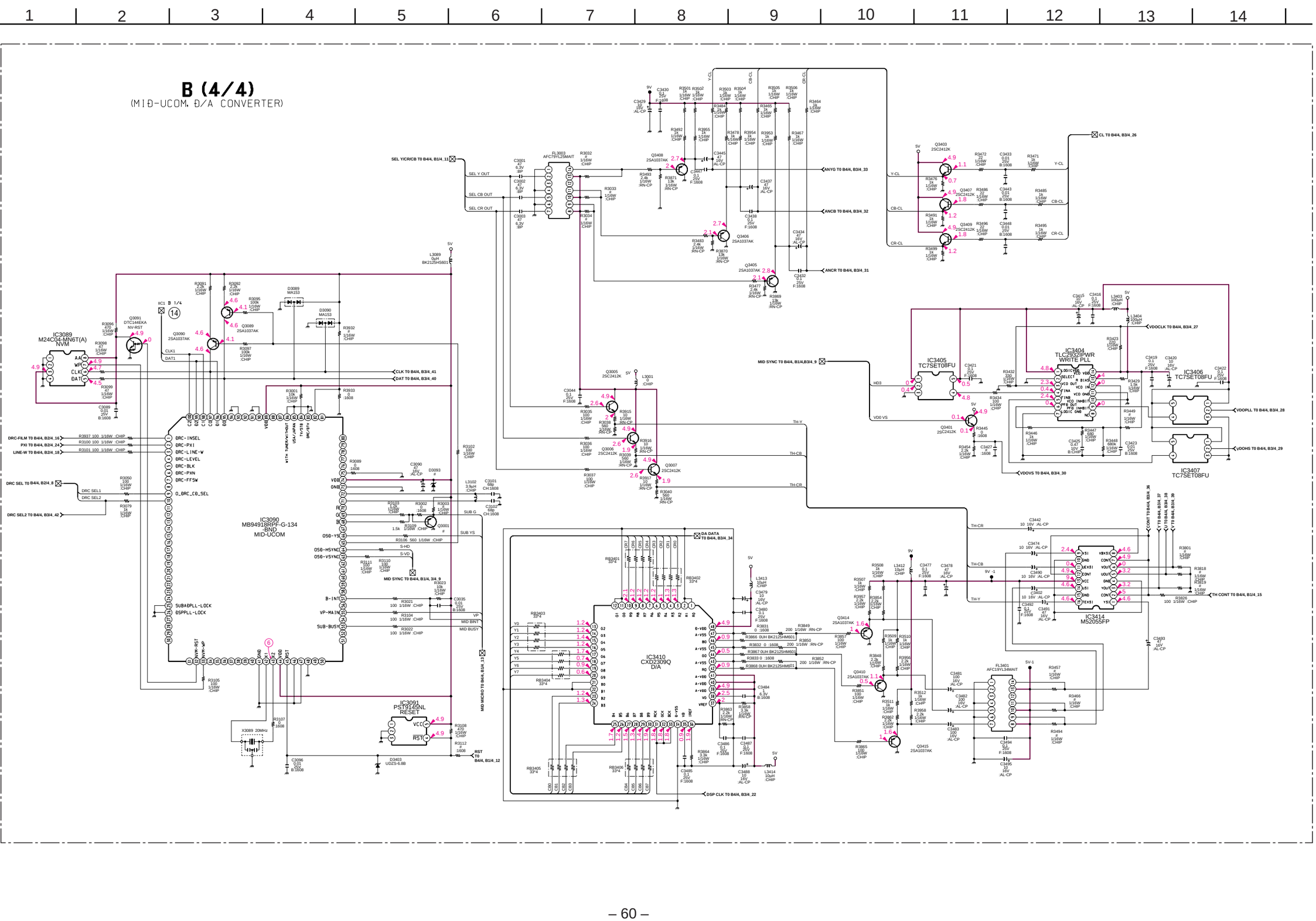

IC3304
TLC5733A
3CH 8BIT A/D
IC3305
TLC2932IPWR
WRITE PLL
B (1/4)
(A/D CONVERTER)
CLP TO B1/4, B2/4_1
ADHD TO B1/4, B2/4_2
Y TO B1/4, B2/4_42
C TO B1/4, B2/4_43
3.3V-2 TO B1/4, B2/4_25
VCO TO B1/4, B2/4_3
PLL TO B1/4, B2/4_4
VD TO B1/4, B2/4_6
MID OUT TO B1/4, B3/4_7
DRC SEL TO B1/4, B4/4_8
MID SYNC TO B1/4, B3/4 B4/4_9
SEL Y/CR/CB TO B1/4, B4/4_11
IIC1 TO B1/4, B4/4_2
MID MICRO TO B1/4, B4/4_13
TH CONT TO B1/4, B4/4_15
VD1 TO B1/4, B3/4_10
RST TO B1/4, B4/4_12
CN3203
64P
:B TO B-P
TO A:CN13

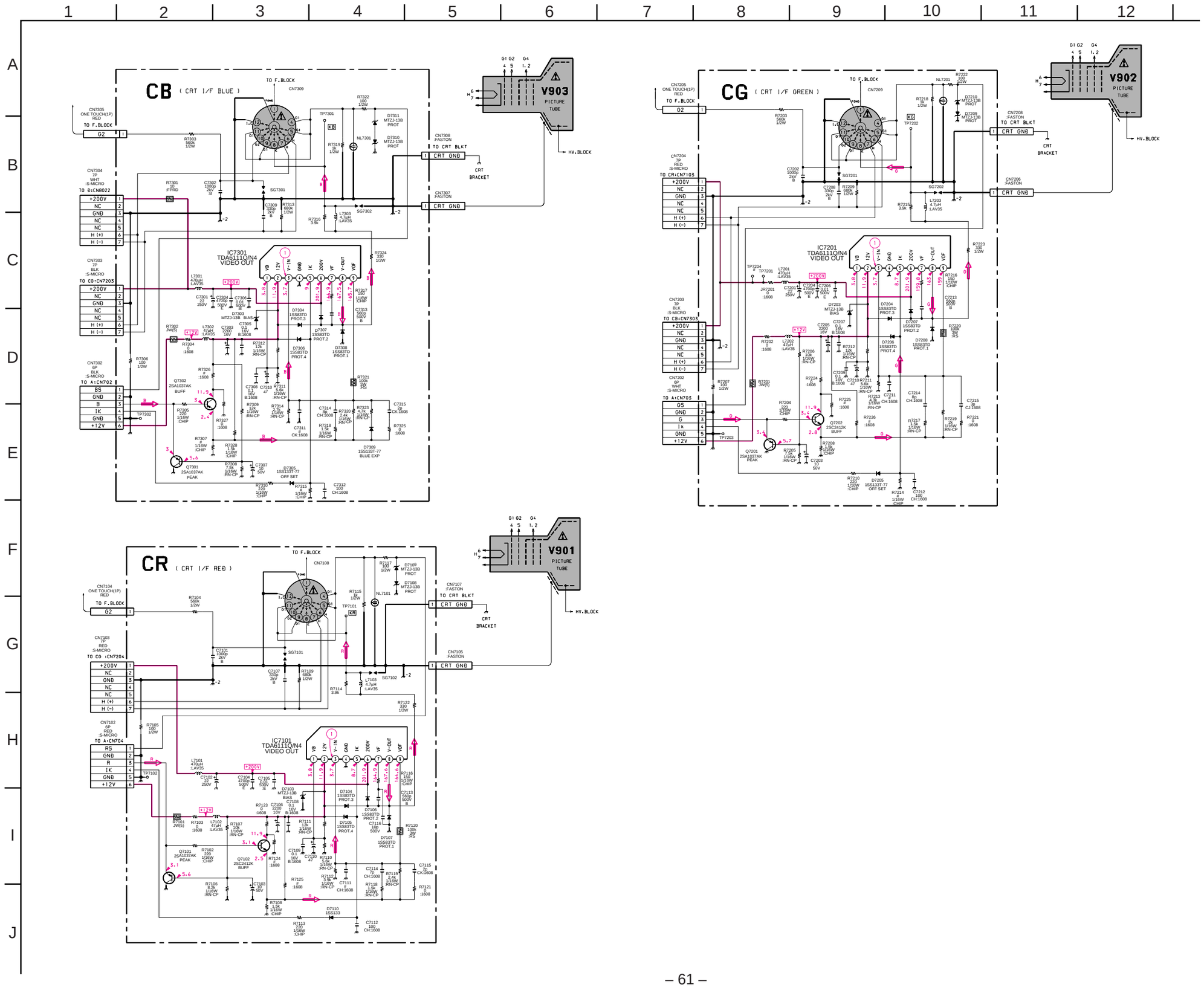

IC3301
HY57V161610DTC
16M-SDRAM
IC3302
BA18BC0FP-E2
1.8V-REG
IC3303
CXD2095AQ
DRC-MF
IC3306
TLC2933IPWR
READ PLL
Q3302
2SC2412K
SWITCH
Q3305
2SA1037AK
SWITCH
3.3V-2 B2/4, B1/4, B3/4_25
PXI TO B2/4, B4/4_24
DRC-FILM TO B2/4, B4/4_16
DRC RESET TO B2/4, B3/4_17
LINE-W TO B2/4, B4/4_16
XDRCVS TO B2/4, B4/4_19
XDRCHS TO B2/4, B4/4_20
DRCDCLK TO B2/4, B4/4_22
C540 TO B2/4, B4/4_21
Y TO B2/4, B1/4_42
C TO B2/4, B1/4_43
VD TO B2/4, B1/4_6
PLL TO B2/4, B1/4_4
ADHD TO B2/4, B1/4_2
CLP TO B2/4, B1/4_1
CLP TO B2/4, B1/4_1
DRC TO B2/4, B3/4_23
VCO TO B2/4, B1/4_3
B (2/4)
(DRC)


IC3408
CXD9509AQ
MULTI IMAGE DRIVE
IC3401
BA25BC0FP-E2
2.5V-REG
IC3403
PST9120NL
IC3402
MT48LC2M32B2TG
64M-SDRAM
IC3411
TC7W04FU
IC3412
TC7W08FU
IC3413
SN74LV4053ANSR
SYNC SW
IC3409
NJM2870F25
2.5V-REG
B (3/4) (MULTI IMAGE DRIVER)

B (4/4)

(MID-UCOM, D/A CONVERTER)




CB (CRT I/F BLUE)
CG (CRT I/F GREEN)
CR (CRT I/F RED)
V903 PICTURE TUBE
V902 PICTURE TUBE
V901 PICTURE TUBE
IC7301 TDA6111Q/N4 VIDEO OUT
IC7201 TDA6111Q/N4 VIDEO OUT
IC7101 TDA6111Q/N4 VIDEO OUT
TO F.BLOCK
HV.BLOCK
CRT BRACKET
CN7309
CN7305 ONE TOUCH(1P) RED
CN7304 7P WHT :S-MICRO
CN7303 7P BLK :S-MICRO
CN7302 6P BLK :S-MICRO
CN7307 FASTON
CN7308 FASTON
CN7209
CN7205 ONE TOUCH(1P) RED
CN7204 7P RED :S-MICRO
CN7203 7P BLK :S-MICRO
CN7202 6P WHT :S-MICRO
CN7206 FASTON
CN7208 FASTON
CN7108
CN7104 ONE TOUCH(1P) RED
CN7103 7P RED :S-MICRO
CN7102 6P RED :S-MICRO
CN7105 FASTON
CN7107 FASTON
+200V
+12V
CRT GND
G2
BS
GND
B
IK
+12V
R
H (+)
H (-)
Q7301 2SA1037AK PEAK
Q7302 2SA1037AK BUFF
Q7201 2SA1037AK PEAK
Q7202 2SC2412K BUFF
Q7101 2SA1037AK PEAK
Q7102 2SC2412K BUFF
D7303 MTZJ-13B BIAS
D7311 MTZJ-13B PROT
D7310 MTZJ-13B PROT
D7209 MTZJ-13B PROT
D7210 MTZJ-13B PROT
D7109 MTZJ-13B PROT
D7108 MTZJ-13B PROT
D7309 1SS133T-77 BLUE EXP
D7305 1SS133T-77 OFF SET
D7205 1SS133T-77 OFF SET
D7110 1SS133
D7304 1SS83TD PROT.3
D7307 1SS83TD PROT.2
D7306 1SS83TD PROT.4
D7308 1SS83TD PROT.1
D7204 1SS83TD PROT.3
D7207 1SS83TD PROT.2
D7206 1SS83TD PROT.4
D7208 1SS83TD PROT.1
D7104 1SS83TD PROT.3
D7106 1SS83TD PROT.2
D7105 1SS83TD PROT.4
D7107 1SS83TD PROT.1
SG7301
SG7302
SG7201
SG7202
SG7101
SG7102
TP7302
TP7203
TP7202
TP7201
TP7101
TP7102
NL7301
NL7201
NL7101
L7303 4.7uH :LAV35
L7203 4.7uH :LAV35
L7103 4.7uH :LAV35
L7301 470uH :LAV35
L7201 470uH :LAV35
L7101 470uH :LAV35
L7302 47uH :LAV35
L7202 47uH :LAV35
L7102 47uH :LAV35
R7303 560k 1/2W
R7301 10 :FRD
R7319 1k 1/2W
R7322 100 1/2W
R7313 560k 1/2W
R7316 3.9k
R7324 330 1/2W
R7217 22 1/16W :CHIP
R7306 100 1/2W
R7304 0 :1608
R7312 12k 1/16W :RN-CP
R7326 0 :1608
R7305 220 1/16W :CHIP
R7327 0 :1608
R7309 12k 1/16W :RN-CP
R7314 2.7k 1/16W :RN-CP
R7318 1.5k 1/16W :RN-CP
R7320 2.4k 1/16W :RN-CP
R7323 4.7k 1/16W :RN-CP
R7321 100k 3W :RS
R7307 0 1/16W :CHIP
R7329 1.2k 1/16W :CHIP
R7308 7.5k 1/16W :RN-CP
R7330 220 1/16W :CHIP
R7315 0 1/16W :CHIP
R7222 100 1/2W
R7218 22 1/2W
R7215 3.9k
R7223 330 1/2W
R7216 150 1/16W :CHIP
R7213 5000 B
R7220 100k 3W :RS
R7201 JW(5)
R7202 0 :1608
R7212 12k 1/16W :RN-CP
R7206 10k 1/16W :RN-CP
R7224 0 :1608
R7225 0 :1608
R7211 5.6k 1/16W :RN-CP
R7213 5.6k 1/16W :CH-1608
R7226 0 :1608
R7217 1/16W :RN-CP
R7219 2k 1/16W :RN-CP
R7221 :1608
R7207 100 1/2W
R7205 1.6k 1/16W :RN-CP
R7208 1/16W :CHIP
R7210 220 1/16W :CHIP
R7214 1/16W :CHIP
R7117 (1M) 1/2W
R7115 1k 1/2W
R7104 560k 1/2W
R7114 3.9k
R7122 330 1/2W
R7105 100 1/2W
R7123 0 :1608
R7103 0 :1608
R7107 10k 1/16W :RN-CP
R7102 220 1/16W :CHIP
R7124 0 :1608
R7106 8.2k 1/16W :RN-CP
R7125 0 :1608
R7108 1/16W :CHIP
R7113 220 1/16W :CHIP
R7111 12k 1/16W :RN-CP
R7110 5.6k 1/16W :RN-CP
R7112 3.9k 1/16W :RN-CP
R7116 150 1/16W :CHIP
R7120 100k 3W :RS
R7119 2.4k 1/16W :RN-CP
R7118 1.5k 1/16W :RN-CP
R7121 0 :1608
C7301 22 250V
C7304 47000 500V E
C7306 0.01 500V E
C7303 100 16V B
C7305 0.1 16V B:1608
C7307 10 50V
C7308 0.1 16V B:1608
C7310 47
C7311 CK:1608
C7314 68p CH:1608
C7315 70 CK:1608
C7312 100 CH:1608
C7309 330p 2kV B
C7302 1000p 2kV B
C7201 22 250V
C7204 47000 500V E
C7206 0.01 500V E
C7205 2200 16V
C7207 0.1 16V B:1608
C7209 0.1 16V B:1608
C7210 47
C7211 CH:1608
C7214 68p CH:1608
C7215 CJ:1608
C7208 330p 2kV B
C7202 1000p 2kV B
C7101 1000p 2kV B
C7107 330p 2kV B
C7102 22 250V
C7104 47000 500V E
C7105 0.01 500V E
C7106 2200 16V
C7108 0.1 16V B:1608
C7109 0.1 16V B:1608
C7110 47
C7111 CH:1608
C7114 68p CH:1608
C7115 70 CK:1608
C7112 100 CH:1608
C7213 5000 B
C7113 5000 B
R7309 0 :1608
R7310 0 :1608
R7311 0 :1608
R7312 0 :1608
R7313 0 :1608
R7314 0 :1608
R7315 0 :1608
R7316 0 :1608
R7317 0 :1608
R7318 0 :1608
R7319 0 :1608
R7320 0 :1608
R7321 0 :1608
R7322 0 :1608
R7323 0 :1608
R7324 0 :1608
R7325 0 :1608
R7326 0 :1608
R7327 0 :1608
R7328 0 :1608
R7329 0 :1608
R7330 0 :1608
R7201 0 :1608
R7202 0 :1608
R7203 0 :1608
R7204 0 :1608
R7205 0 :1608
R7206 0 :1608
R7207 0 :1608
R7208 0 :1608
R7209 0 :1608
R7210 0 :1608
R7211 0 :1608
R7212 0 :1608
R7213 0 :1608
R7214 0 :1608
R7215 0 :1608
R7216 0 :1608
R7217 0 :1608
R7218 0 :1608
R7219 0 :1608
R7220 0 :1608
R7221 0 :1608
R7222 0 :1608
R7223 0 :1608
JR7201 0 :1608
JW(5)
3.8
11.9
5.7
8.7
201.9
164.6
167.5
165.4
15.8
16.5
15.9
5.6
3.4
2.8
2.5
3.1
5.1
5.6
5.7
11.9

D (1/3)
(HV DRIVE)

IC8003
LA78045
V.OUT

IC8002
STK392-560
CONV.OUT 1

IC8001
STK392-560
CONV.OUT 2

CN8006
10P
:B TO B-S
TO A:CN14

G2_MUTE VCC	1
G2 CNT	2
V_DRV (+)	3
GND	4
V_DRV (-)	5
GND	6
VP	7
GND	8
NC	9
+135V	10

CN8024
#
:FASTON

CN8007
3P
WHT
:S-MICRO
TO DY (R)

CN8008
3P
WHT
:S-MICRO
TO DY (G)

CN8009
3P
WHT
:S-MICRO
TO DY (B)

CN8010
4P
YEL
:S-MICRO
TO DY (B)

CN8011
4P
WHT
:S-MICRO
TO DY (G)

CN8012
4P
RED
:S-MICRO
TO DY (R)

CN8005
10P
:B TO B-S
TO A:CN1

BV	1
BH	2
GND	3
GV	4
GH	5
GND	6
RV	7
RH	8
GND	9
GND	10

D (2/3)
(POWER SUPPLY)

CN8013 9P :VH TO G:CN5004 (RA6)
CN8017 # :FASTON
CN8015 2P :LARGE
CN8016 4P WHT :S-MICRO TO HV BLOCK
IC8004 NJM78L12A-T3
IC8008 BA9759F-E2
IC8007 NJM2903
IC8006 NJM2903
T8004 :LOT
TR005 NX-4006/X :FBT
CN8022 7P WHT :S-MICRO TO CB:CN7304
CN8023 4P BLK :S-MICRO
CN8021 2P :LARGE

HD IN TO D2/3, D3/3_2
H DRV TO D2/3, D3/3_4
ABL TO D2/3, D3/3_5
HV PROT TO D2/3, D3/3_3

1 2 3 4 5 6 7 8 9 10 11 12 13

A B C D E F G H I J

CN8004 10P :B TO B-S TO A:CN3
GND 1
H_CENT 2
GND 3
ÐF_V 4
GND 5
ÐF 6
GND 7
+15V 8
GND 9
-15V 10

CN8003 4P WHT :MINI(LOCK) TO FOCUS PACK
G2 1
ÐF 1 2
NC 3
GND 4

+15V -15V

JW158 JW159 MUTE VCC TO D3/3, D1/3_6

R8068 100 1/16W :CHIP
D8005 1SS133 RECT
C8004 220 25V
R8010 470k 1/2W
Q8003 2SA1037AK G2-STOP/CONTROL
R8024 10k 1/16W :CHIP
R8021 10k 1/16W :CHIP
D8040 *
C8014 100 25V
R8020 4.7k 1/16W :CHIP
R8023 10k 1/16W :CHIP
D8006 1SS133 LIMIT
Q8002 2SC4634LS-CB11 G2-STOP

Q8007 2SC4634LS-CB11 DF V AMP
R8034 10k 1/16W :CHIP
C8018 10
R8042 2.7k 1/16W :CHIP
C8016 100 25V
R8033 10k 1/16W :CHIP
R8062 4.7k 1/2W
R8037 68k 2W :RS
R8065 1k 1/2W
R8030 68k 2W :RS
C8040 0.01 2kV :F

T8001 DFT

+22V
L8009 10µH :LHL08
L8010 47µH :LAV35
C8045 22
C8047 0.01 F:1608
C8050 22
C8053 0.01 F:1608
Q8010 2SC2412K
R8104 8.2k 1/16W :CHIP
Q8015 2SC2412K
Q8009 2SC3421-Y DF H BUFF
R8096 22 1/16W :CHIP
C8055 0.1 25V F:1608
R8112 1.8k 1/16W :CHIP
R8088 2.2 :FPRD
R8111 680 1/16W :CHIP
R8087 2.2 :FPRD
Q8008 2SA1358-Y DF H BUFF
Q8011 2SA1037AK DF H BUFF
R8080 2.2 1W :RS
C8046 22
R8095 22 1/16W :CHIP
Q8014 2SC2412K
C8057 0.47
L8006 10µH :LHL08
C8048 22
C8049 0.01 F:1608
R8103 390 1/16W :CHIP
R8109 270 1/16W :CHIP
R8110 6.8k
C8052 22
C8054 0.01 F:1608
L8012 47µH :LAV35
-22V

+135V

C8084 0.022 :PT
R8152 10k 1/16W :RN-CP
R8154 33k 1/16W :RN-CP
R8155 100k :RN
R8156 100k :RN

DF VCC

L8019 HLC
C8117 1000p 500V :E
R8202 270 1/2W

IC8009 LA6500P-FA

HD IN TO D3/3, D2/3_2

C8071 10
C8069 0.01 25V B:1608
C8078 1000p 25V CH:1608
R8144 100 1/16W :CHIP
R8143 56k 1/16W :RN-CP
Q8027 2SJ585LS-CC11
L8016 100µH :LHL08
FB8002 1.1UH
C8093 100 160V
R8165 4.7k
D8024 MTZJ-15B
C8107 0.047 250V :MPS
R8172 100 :FPRD
D8027 D2L20U-TA
FB8021 1.1UH

T8003 HOT
FB8015 MPZ2012S331AT
R8206 0.47 :FPRD
C8121 0.01 2kV :F
D8033 RGP02-17PKG23 BIAS
FB8016 MPZ2012S331AT
R8205 0.47 :FPRD
D8032 RGP10GPKG23 BIAS
C8122 220 16V
FB8017 MPZ2012S331AT

R8217 1k 1/16W :CHIP
D8045 GP08D
C8125 0.1 16V B:1608
C8132 1000 25V
C8128 # B:1608
R8221 # 1/16W :CHIP
C8130 # B:1608
R8220 1k 1/16W :CHIP
R8211 15 3W :RS
L8023 10µH :LAV35
R8005 10k 1W :RS
C8137 1000 25V
C8135 0.75 250V :PP
L8022 2.2mH :LHL08
R8228 68 1/2W :FPRD
C8133 2.2 250V

CN8019 4P :VH TO ÐY (B)
H_OUT (B) 1
NC 2
NC 3
H_RET (B) 4

CN8020 4P :VH TO ÐY (R)
H_OUT (R) 1
NC 2
NC 3
H_RET (R) 4

CN8018 4P :VH TO ÐY (G)
H_OUT (G) 1
NC 2
NC 3
H_RET (G) 4

H DRV TO D3/3, D2/3_4

R8124 0.47 :FPRD
C8063 0.1 16V B:1608
R8120 10k 1/16W :CHIP
Q8020 2SC2412K
R8083 1k 1/16W :CHIP
D8046 1SS133
R8121 100 1/16W :CHIP
C8116 0.1 16V B:1608
R8117 10k 1/16W :CHIP
Q8016 2SC2412K
C8058 220p CH:1608
R8118 10k 1/16W :CHIP
Q8019 2SA1037AK
Q8004 2SA1037AK
R8084 10k 1/16W :CHIP

IC8005 BA9759F-E2

C8085 56p CH:1608
R8146 10k 1/16W :RN-CP
R8148 100k 1/16W :CHIP
C8082 0.047 16V B:1608
R8136 10k 1/16W :CHIP
C8076 22 25V
C8074 100 25V
C8081 1000p 25V CH:1608
R8137 100k 1/16W :RN-CP
D8012 1SS133
R8145 10k 1/16W :RN-CP
D8011 1SS133
D8010 1SS133
C8077 0.01 25V B:1608

IC8012 NJM2904M(TE2)
C8106 0.1 16V B:1608
C8139 10
R8209 10k 1/16W :CHIP
R8216 10k 1/16W :CHIP
C8120 0.1 16V B:1608
R8210 100 1/16W :CHIP
Q8039 2SC2688(5)-LK
R8213 1k 1/16W :CHIP

EW DRV

L8026 10µH :LAV35
FB8018 MPZ2012S331AT
C8064 10 160V
C8065 0.047 200V :PT
R8133 12k 3W :RS
R8135 12k 3W :RS
C8061 0.1 16V B:1608
R8123 # 1/16W :CHIP
D8047 1SS133
R8119 10k 1/16W :CHIP
Q8030 2SA1037AK
C8059 0.22 16V B:1608
R8125 390 1/16W :CHIP
R8126 1.5k 1/16W :CHIP
C8152 # B:1608
Q8023 2SC2688(5)-LK H.DRIVE
R8134 4.7k 1W :RS
C8068 10000p 500V :E

T8002 HDT
Q8024 2SC5681-YB H.OUT
D8021 PG124S15 DAMPER
R8149 10 3W :RS
FB8019 1.1UH
C8089 100p 2kV :B
C8092 8800p 1.2kV :MPP

C8098 220p 2kV :B
C8097 220p 2kV :B
C8096 0.0022 100V :PT
C8101 # :B
R8175 # 1/16W :CHIP
R8174 4.7k
D8026 MTZJ-5.6B
R8178 47k 1/16W :CHIP
Q8031 2SC2412K
R8189 0.47 :FPRD
C8115 0.1 16V B:1608
Q8101 2SA1037AK

H.CENT

CN8002 10P :B TO B-S TO A:CN2
REGI_MUTE 1 <REGI MUTE TO D3/3, D2/3_1
HV_PROT 2 <HV PROT TO D3/3, D2/3_3
GND 3
ABL 4 <ABL TO D3/3, D2/3_5
GND 5
HP 6
GND 7
PIN (E-W) 8
GND 9
H_DRV 10

H DRV

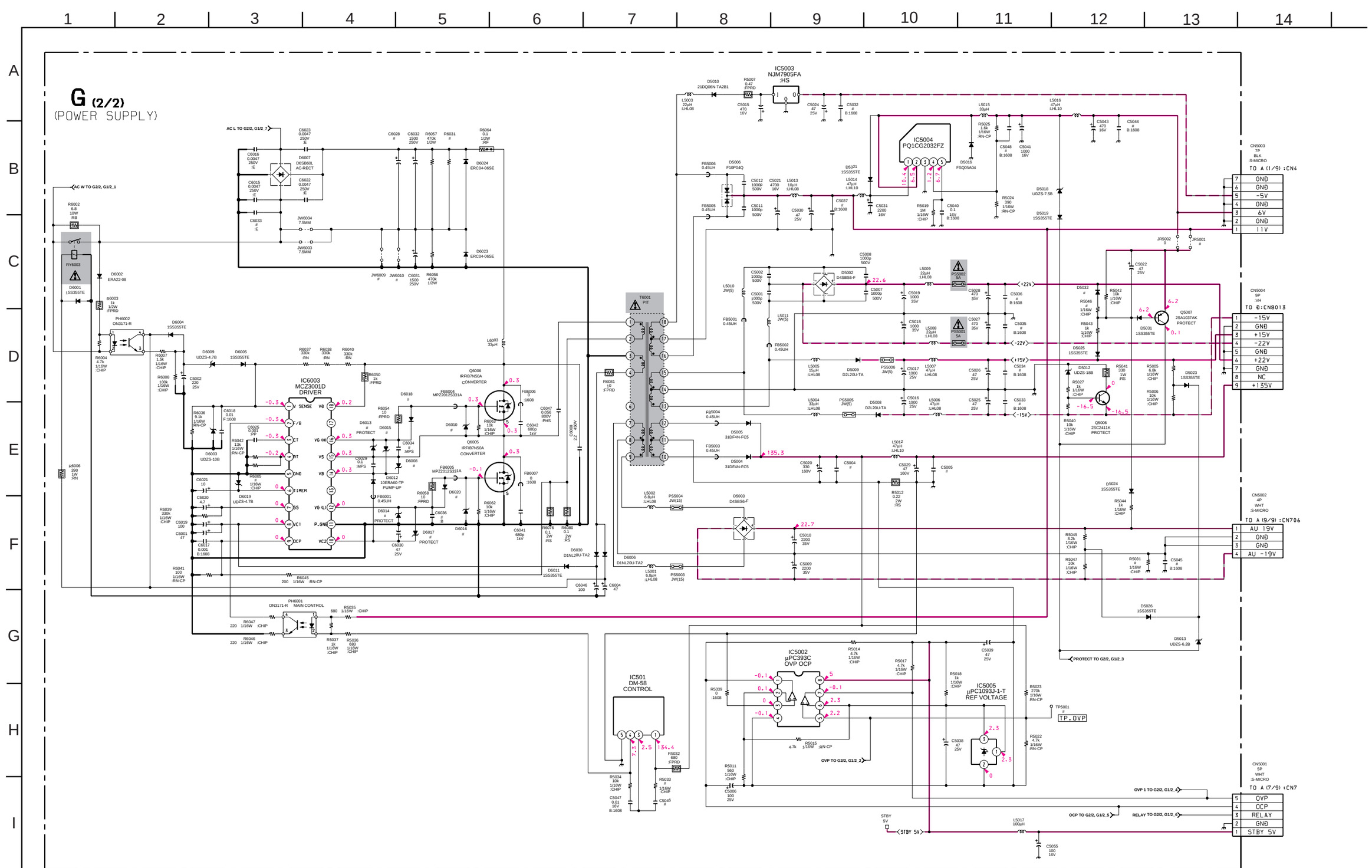
HP

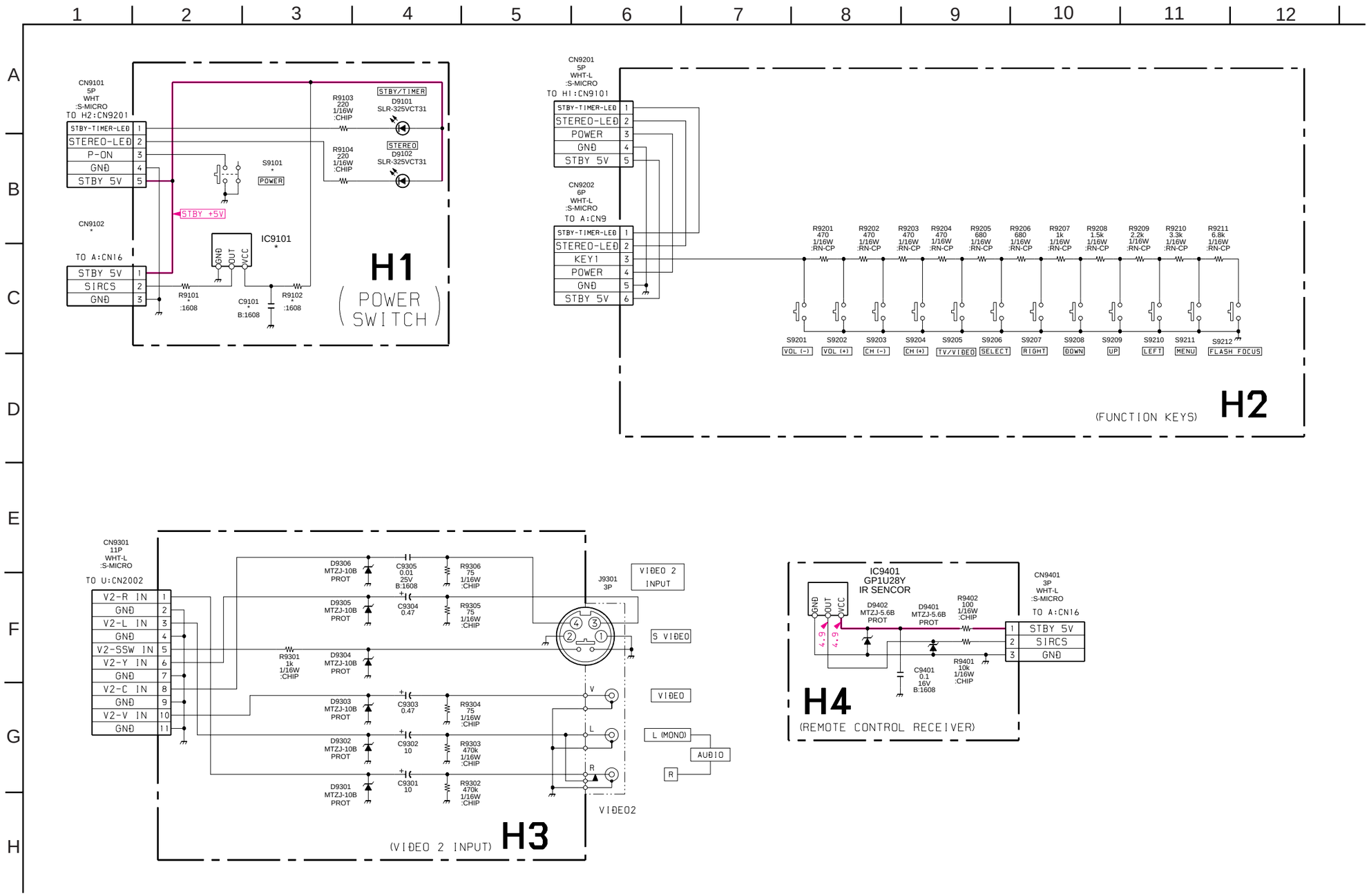
D (3/3)
(H ÐRIVE)

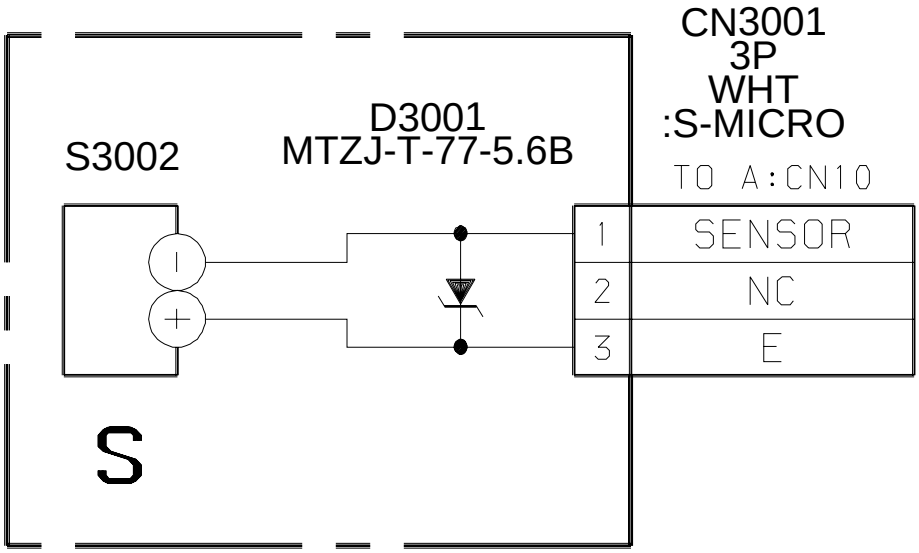
CN6003 #
AC (W) 1
2
3
AC (L) 4
AC L TO G1/2, G2/2_7
CN6004 #
AC (W) 1
2
3
AC (L) 4
VD6002 #
C6013 2200p 250V E
C6012 2200p 250V E
L6002 LFT
C6043 0.22 250V :AC
L6001 LFT
VD6001 NR14V471K
FB6013 1.1UH
FB6014 1.1UH
FB6015 1.1UH
FB6016 1.1UH
C6014 0.47 250V :AC
CN6005 2P
120V AC 60Hz
AC (W) 1
AC (L) 2
R6018 #
FH6002
F6001 6.3A
FH6001
R6014 #
CN5007 :FASTON
E 1
TO CRT BLKT
R6015 2.2M 1/2W
CN5005 :FASTON
ANT E 1
TO A (2/9) :CN815
JW6007 10MM
C6045 JW(12.5)
RY6002
AC W TO G1/2, G2/2_1
D5011 1SS355TE
TH6002 PTH8L05AR/88 :PTC
T6004 TRANS.STBY 120V
D5017 S1VBA20
C5050 330 63V
C5054 4700 35V
D5022 1SS355TE
CN5006 :FASTON
ANT E (NC) 1
RELAY TO G1/2, G2/2_6
PROTECT TO G1/2, G2/2_3
OVP 1 TO G1/2, G2/2_4
OCP TO G1/2, G2/2_5
D5015 1SS355TE
R5021 1k 1/16W :CHIP
C5049 0.01 25V B:1608
R5028 1k 1/16W :CHIP
R5026 10k 1/16W :CHIP
Q5003 2SA1037AK RELAY DRIVE
Q5004 2SC2412K RELAY DRIVE
D5014 1SS355TE
D5007 1SS355TE
R5030 10k 1/16W :CHIP
R5029 10k 1/16W :CHIP
C5042 4.7
C5060 #
OVP TO G1/2, G2/2_2
D5020 1SS355TE
R5038 1k 1/16W :CHIP
R5020 1k 1/16W :CHIP
D5001 UDZS-24B
R5013 10k 1/16W :CHIP
Q5001 2SD1782K RELAY DRIVE
R5016 10k 1/16W :CHIP
C5003 # B:1608
Q5002 2SC2412K BUFFER
Q5005 DTA114EKA-T146 RELAY SW
R5010 1M
C5051 2.2
IC5006 BA05T STBY 5V REG.
STBY 5V
C5053 47

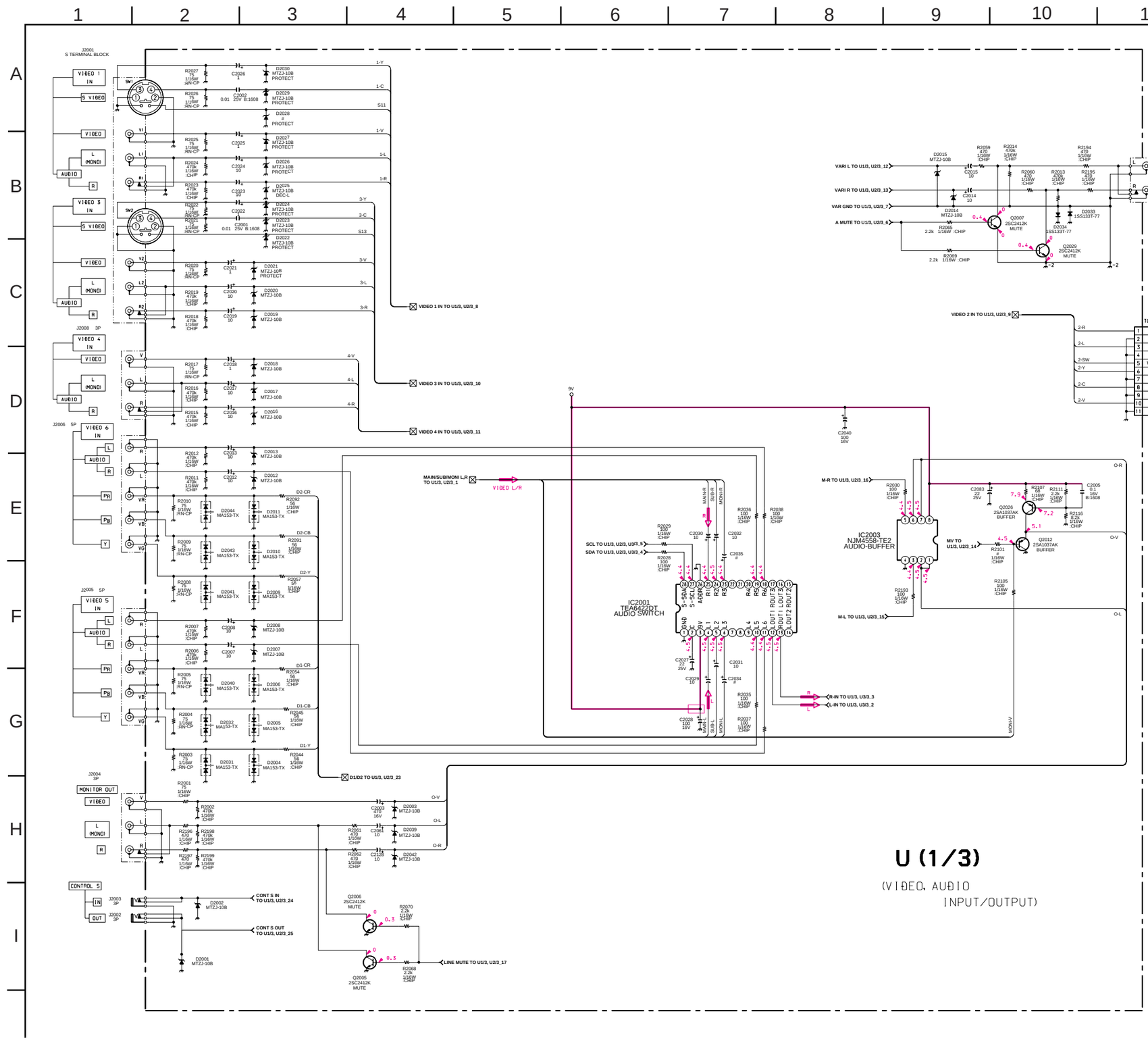
G (1/2)
(RELAY DRIVE, STBY 5V, REGULATOR)

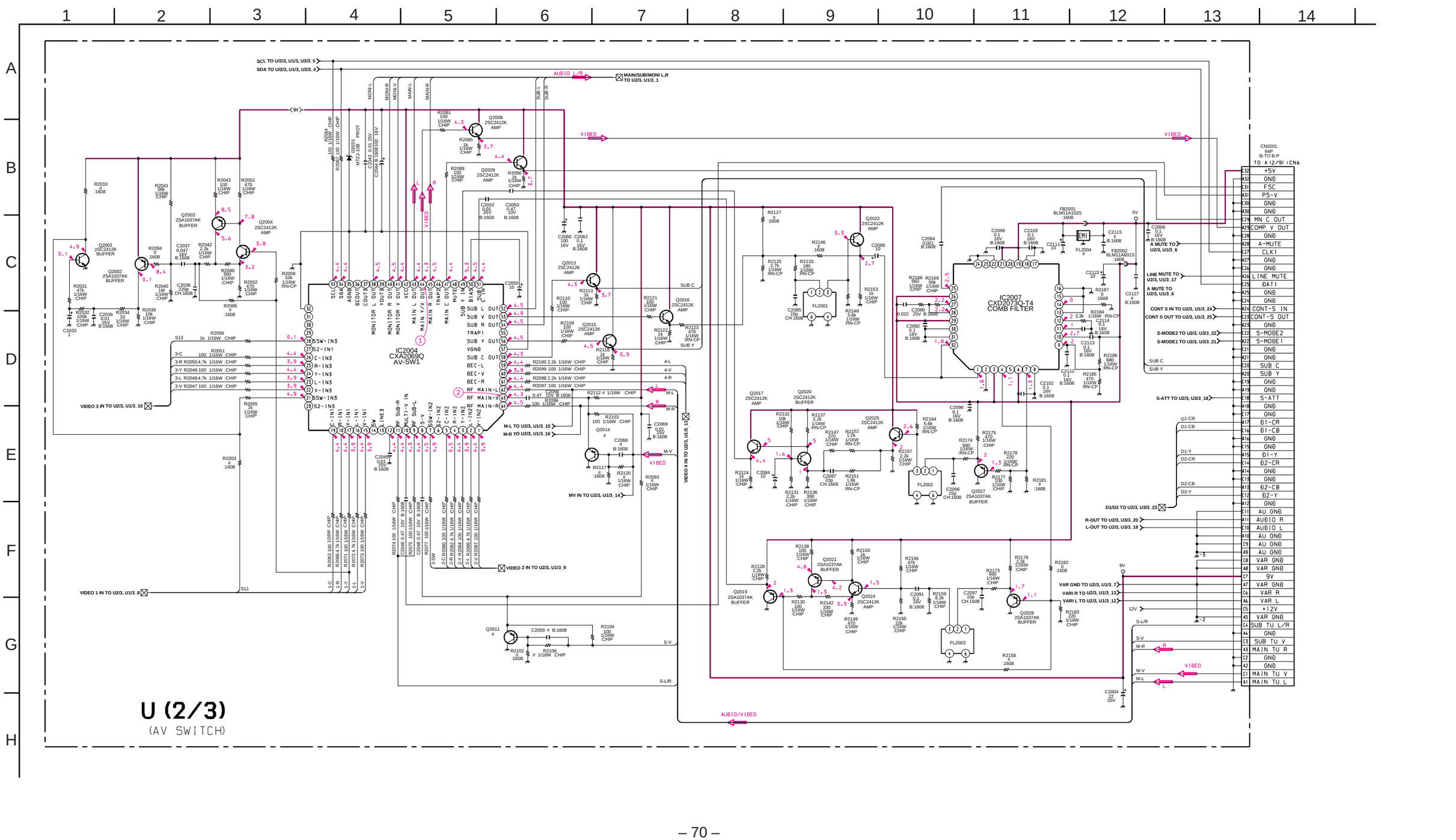
G (2/2)
(POWER SUPPLY)

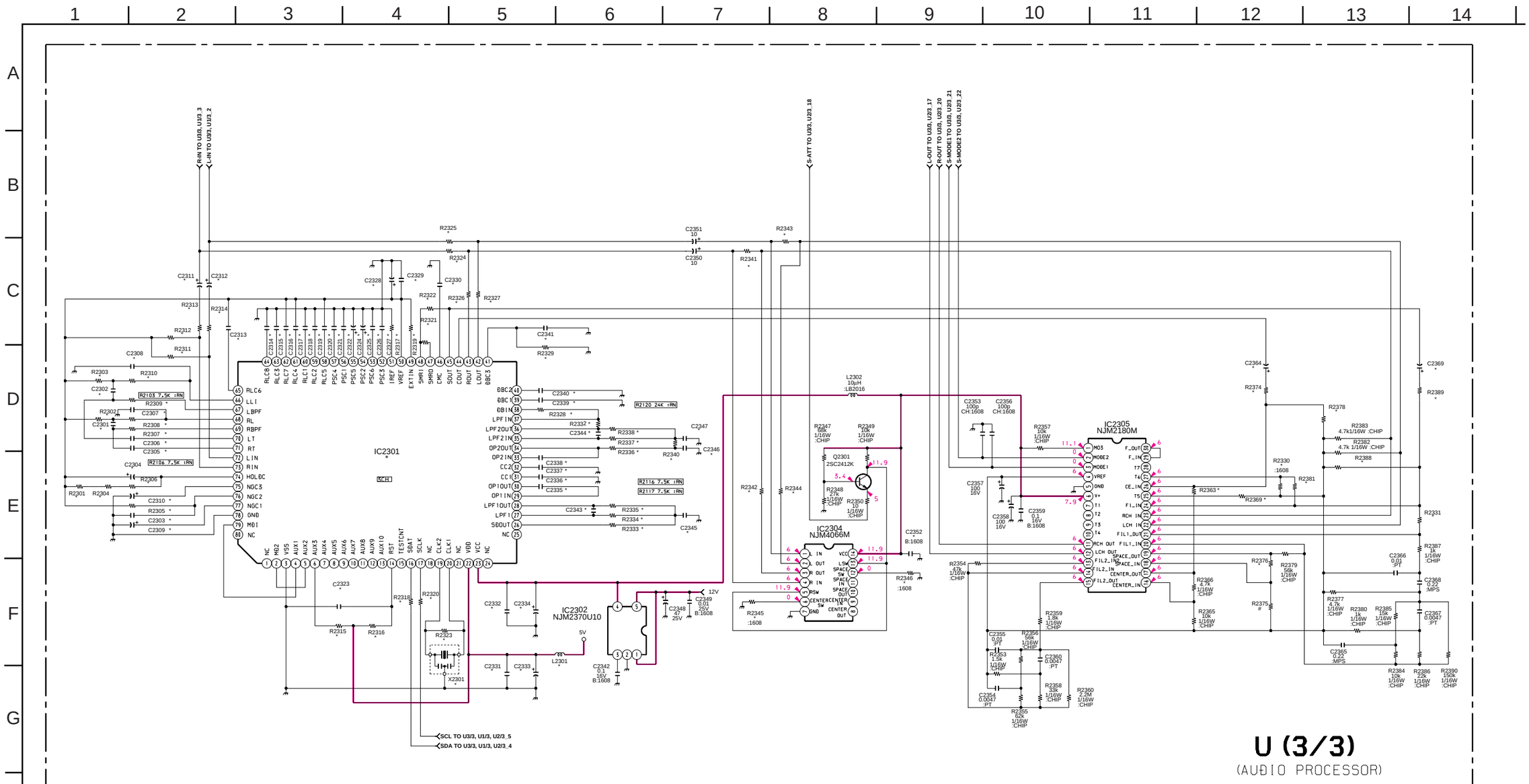


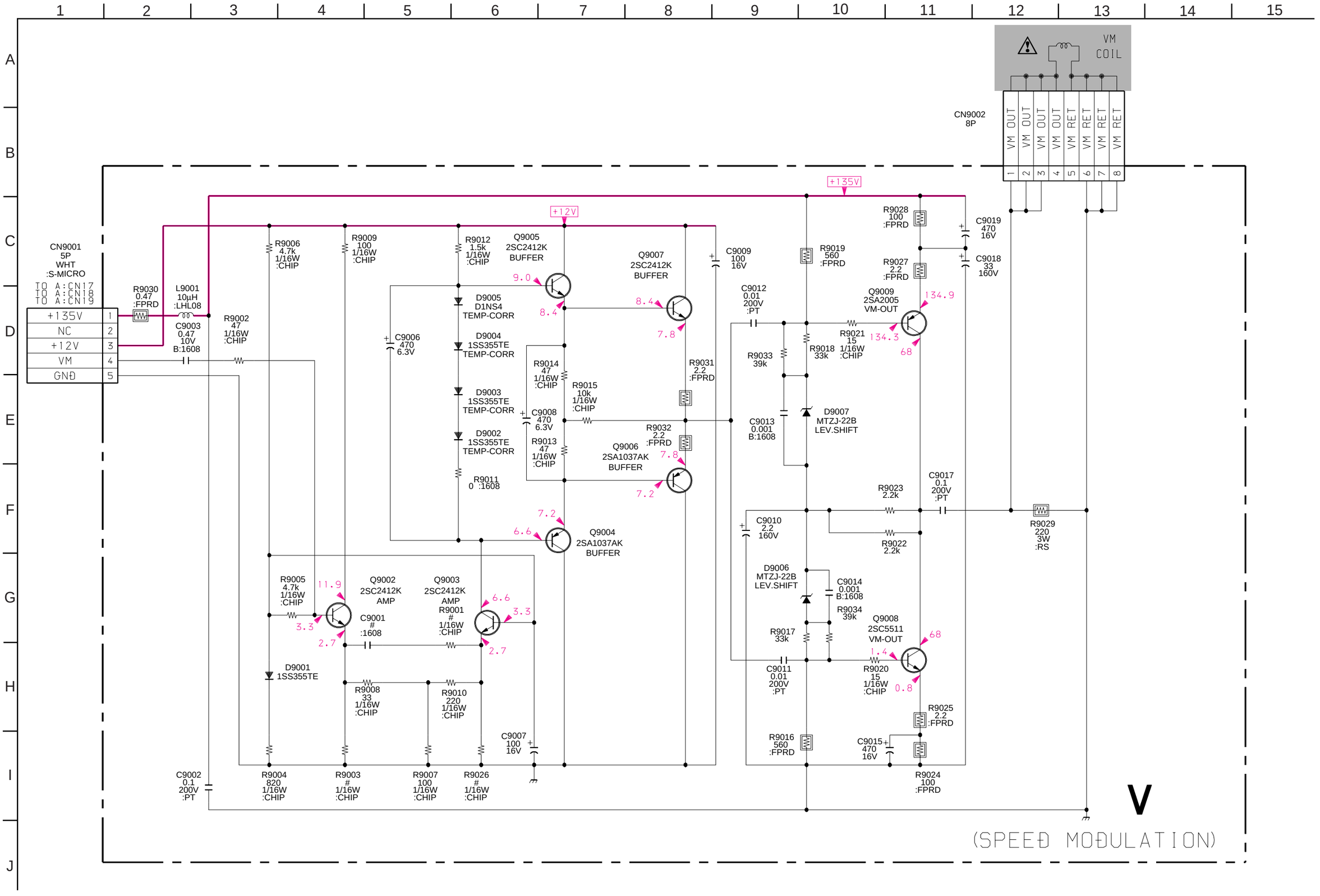

CN9101
5P
WHT
:S-MICRO
TO H2:CN9201
STBY-TIMER-LED 1
STEREO-LED 2
P-ON 3
GND 4
STBY 5V 5
R9103
220
1/16W
:CHIP
STBY/TIMER
D9101
SLR-325VCT31
R9104
220
1/16W
:CHIP
STEREO
D9102
SLR-325VCT31
S9101
POWER
STBY +5V
CN9102
TO A:CN16
STBY 5V 1
SIRCS 2
GND 3
IC9101
GND
OUT
VCC
R9101
:1608
C9101
B:1608
R9102
:1608
H1
POWER
SWITCH
CN9201
5P
WHT-L
:S-MICRO
TO H1:CN9101
STBY-TIMER-LED 1
STEREO-LED 2
POWER 3
GND 4
STBY 5V 5
CN9202
6P
WHT-L
:S-MICRO
TO A:CN9
STBY-TIMER-LED 1
STEREO-LED 2
KEY1 3
POWER 4
GND 5
STBY 5V 6
R9201 470 1/16W :RN-CP
R9202 470 1/16W :RN-CP
R9203 470 1/16W :RN-CP
R9204 470 1/16W :RN-CP
R9205 680 1/16W :RN-CP
R9206 680 1/16W :RN-CP
R9207 1k 1/16W :RN-CP
R9208 1.5k 1/16W :RN-CP
R9209 2.2k 1/16W :RN-CP
R9210 3.3k 1/16W :RN-CP
R9211 6.8k 1/16W :RN-CP
S9201 VOL (-)
S9202 VOL (+)
S9203 CH (-)
S9204 CH (+)
S9205 TV/VIDEO
S9206 SELECT
S9207 RIGHT
S9208 DOWN
S9209 UP
S9210 LEFT
S9211 MENU
S9212 FLASH FOCUS
(FUNCTION KEYS)
H2
CN9301
11P
WHT-L
:S-MICRO
TO U:CN2002
V2-R IN 1
GND 2
V2-L IN 3
GND 4
V2-SSW IN 5
V2-Y IN 6
GND 7
V2-C IN 8
GND 9
V2-V IN 10
GND 11
D9306 MTZJ-10B PROT
C9305 0.01 25V B:1608
R9306 75 1/16W :CHIP
D9305 MTZJ-10B PROT
C9304 0.47
R9305 75 1/16W :CHIP
R9301 1k 1/16W :CHIP
D9304 MTZJ-10B PROT
D9303 MTZJ-10B PROT
C9303 0.47
R9304 75 1/16W :CHIP
D9302 MTZJ-10B PROT
C9302 10
R9303 470k 1/16W :CHIP
D9301 MTZJ-10B PROT
C9301 10
R9302 470k 1/16W :CHIP
J9301 3P
VIDEO 2 INPUT
S VIDEO
VIDEO
L (MONO)
AUDIO
R
V
L
R
VIDEO2
(VIDEO 2 INPUT)
H3
IC9401
GP1U28Y
IR SENCOR
GND
OUT
VCC
D9402 MTZJ-5.6B PROT
D9401 MTZJ-5.6B PROT
R9402 100 1/16W :CHIP
4.9
4.9
C9401 0.1 16V B:1608
R9401 10k 1/16W :CHIP
CN9401
3P
WHT-L
:S-MICRO
TO A:CN16
1 STBY 5V
2 SIRCS
3 GND
H4
(REMOTE CONTROL RECEIVER)


CN3001
3P
WHT
:S-MICRO
TO A:CN10
D3001
MTZJ-T-77-5.6B
S3002
1
SENSOR
2
NC
3
E
S


J2001
S TERMINAL BLOCK
VIDEO 1 IN
S VIDEO
VIDEO
L (MONO)
AUDIO
VIDEO 3 IN
VIDEO 4 IN
VIDEO 6 IN
VIDEO 5 IN
MONITOR OUT
CONTROL S
VIDEO 1 IN TO U1/3, U2/3_8
VIDEO 3 IN TO U1/3, U2/3_10
VIDEO 4 IN TO U1/3, U2/3_11
D1/D2 TO U1/3, U2/3_23
MAIN/SUB/MONI L,R TO U1/3, U2/3_1
VIDEO L/R
SCL TO U1/3, U2/3, U3/3_5
SDA TO U1/3, U2/3, U3/3_4
IC2001
TEA6422DT
AUDIO SWITCH
IC2003
NJM4558-TE2
AUDIO-BUFFER
R-IN TO U1/3, U3/3_3
L-IN TO U1/3, U3/3_2
M-R TO U1/3, U2/3_16
M-L TO U1/3, U2/3_15
MV TO U1/3, U2/3_14
VARI L TO U1/3, U2/3_12
VARI R TO U1/3, U2/3_13
VAR GND TO U1/3, U2/3_7
A MUTE TO U1/3, U2/3_6
VIDEO 2 IN TO U1/3, U2/3_9
J2007
2P
AUDIO OUT (VAR/FIX)
CN2002
11P
WHT-L
S-MICRO
TO H5:CN9501
1 V2-R IN
2 GND
3 V2-L IN
4 GND
5 V2-SW IN
6 V2-Y IN
7 GND
8 V2-C IN
9 GND
10 V2-V IN
11 GND
CONT S IN TO U1/3, U2/3_24
CONT S OUT TO U1/3, U2/3_25
LINE MUTE TO U1/3, U2/3_17
U (1/3)
(VIDEO, AUDIO
INPUT/OUTPUT)


U (2/3)
(AV SWITCH)
IC2004
CXA2069Q
AV-SW1
IC2007
CXD2073Q-T4
COMB FILTER
CN2001
64P
TO A (2/9) :CN6
SCL TO U2/3, U1/3, U3/3_5
SDA TO U2/3, U1/3, U3/3_4
MAIN/SUB/MONI L,R
TO U2/3, U1/3_1
VIDEO 3 IN TO U2/3, U1/3_10
VIDEO 1 IN TO U2/3, U1/3_8
VIDEO 2 IN TO U2/3, U1/3_9
MV IN TO U2/3, U1/3_14
VIDEO 4 IN TO U2/3, U1/3_11
M-L TO U2/3, U1/3_15
M-R TO U2/3, U1/3_16
A MUTE TO U2/3, U1/3_6
LINE MUTE TO U2/3, U1/3_17
CONT S IN TO U2/3, U1/3_24
CONT S OUT TO U2/3, U1/3_25
S-MODE2 TO U2/3, U3/3_22
S-MODE1 TO U2/3, U3/3_21
S-ATT TO U2/3, U3/3_18
D1/D2 TO U2/3, U3/3_23
R-OUT TO U2/3, U3/3_20
L-OUT TO U2/3, U3/3_19
VAR GND TO U2/3, U1/3_7
VARI R TO U2/3, U1/3_13
VARI L TO U2/3, U1/3_12
AUDIO/VIDEO


1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G
R-IN TO U3(3, U1)3_3
L-IN TO U3(3, U1)3_2
S-ATT TO U3(3, U2)3_18
L-OUT TO U3(3, U2)3_17
R-OUT TO U3(3, U2)3_20
S-MODE1 TO U3(3, U2)3_21
S-MODE2 TO U3(3, U2)3_22
IC2301
SCH
IC2302
NJM2370U10
IC2304
NJM4066M
IC2305
NJM2180M
Q2301
2SC2412K
L2302
10µH
:LB2016
X2301
SCL TO U3/3, U1/3, U2/3_5
SDA TO U3/3, U1/3, U2/3_4
U (3/3)
(AUDIO PROCESSOR)


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
A B C D E F G H I J
VM COIL
CN9002 8P
VM OUT VM OUT VM OUT VM OUT VM RET VM RET VM RET VM RET
1 2 3 4 5 6 7 8
CN9001 5P WHT :S-MICRO
TO A:CN17
TO A:CN18
TO A:CN19
+135V 1
NC 2
+12V 3
VM 4
GND 5
+135V
+12V
R9030 0.47 :FPRD
L9001 10µH :LHL08
C9003 0.47 10V B:1608
R9002 47 1/16W :CHIP
R9006 4.7k 1/16W :CHIP
R9009 100 1/16W :CHIP
R9012 1.5k 1/16W :CHIP
Q9005 2SC2412K BUFFER
9.0
8.4
D9005 D1NS4 TEMP-CORR
D9004 1SS355TE TEMP-CORR
D9003 1SS355TE TEMP-CORR
D9002 1SS355TE TEMP-CORR
R9011 0 :1608
C9006 470 6.3V
R9014 47 1/16W :CHIP
R9015 10k 1/16W :CHIP
C9008 470 6.3V
R9013 47 1/16W :CHIP
Q9007 2SC2412K BUFFER
8.4
7.8
R9031 2.2 :FPRD
R9032 2.2 :FPRD
Q9006 2SA1037AK BUFFER
7.8
7.2
7.2
6.6
Q9004 2SA1037AK BUFFER
C9009 100 16V
R9019 560 :FPRD
R9028 100 :FPRD
C9019 470 16V
R9027 2.2 :FPRD
C9018 33 160V
C9012 0.01 200V :PT
Q9009 2SA2005 VM-OUT
134.9
134.3
68
R9021 15 1/16W :CHIP
R9033 39k
R9018 33k
D9007 MTZJ-22B LEV.SHIFT
C9013 0.001 B:1608
R9023 2.2k
C9017 0.1 200V :PT
R9029 220 3W :RS
C9010 2.2 160V
R9022 2.2k
D9006 MTZJ-22B LEV.SHIFT
C9014 0.001 B:1608
R9034 39k
R9017 33k
Q9008 2SC5511 VM-OUT
68
1.4
0.8
C9011 0.01 200V :PT
R9020 15 1/16W :CHIP
R9025 2.2 :FPRD
R9016 560 :FPRD
C9015 470 16V
R9024 100 :FPRD
R9005 4.7k 1/16W :CHIP
11.9
3.3
2.7
Q9002 2SC2412K AMP
C9001 # :1608
Q9003 2SC2412K AMP
R9001 # 1/16W :CHIP
6.6
3.3
2.7
D9001 1SS355TE
R9008 33 1/16W :CHIP
R9010 220 1/16W :CHIP
C9007 100 16V
C9002 0.1 200V :PT
R9004 820 1/16W :CHIP
R9003 # 1/16W :CHIP
R9007 100 1/16W :CHIP
R9026 # 1/16W :CHIP
V
(SPEED MODULATION)

A [TUNER, VIDEO, AUDIO, SYSTEM CONTROL]

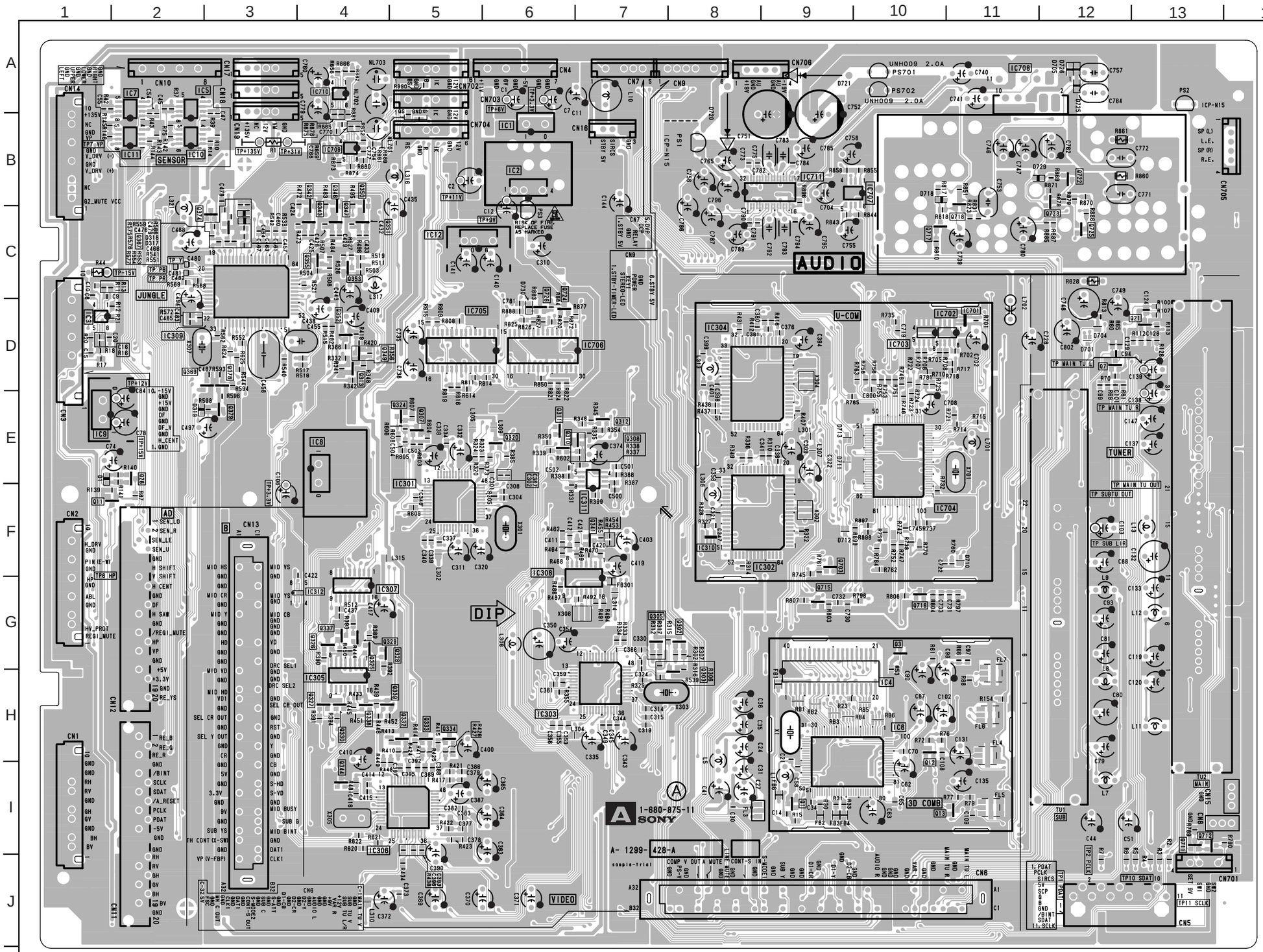
– A Board –

A BOARD

DIODE		*
D1	E-2	③
D317	C-3	③
D318	C-3	③
D319	E-2	③
D701	D-12	⑨
D704	D-12	⑨
D705	A-12	③
D710	F-11	⑨
D711	E-9	⑨
D712	F-9	⑨
D713	E-9	⑨
D718	B-10	③
D720	B-8	
D721	A-9	
D725	A-12	③
D726	A-12	③
D729	B-11	③
D730	D-6	③

IC		
IC1	B-6	
IC2	B-6	
IC3	D-1	
IC4	H-9	
IC5	A-2	
IC6	H-9	
IC7	A-2	
IC8	E-4	
IC9	E-1	
IC10	B-2	
IC11	B-2	
IC12	C-5	
IC301	F-5	
IC302	F-8	
IC303	H-7	
IC304	D-8	
IC305	H-4	
IC306	I-5	
IC307	G-4	
IC308	D-3	
IC309	C-3	
IC310	F-8	
IC311	F-7	
IC312	G-4	
IC701	D-11	
IC702	D-10	
IC703	D-10	
IC704	F-10	
IC705	D-5	
IC706	D-6	
IC707	B-10	
IC708	A-11	
IC709	B-4	
IC710	A-4	
IC711	B-9	

TRANSISTOR		*
Q1	I-9	②
Q3	G-10	②
Q7	D-12	②
Q11	F-1	②
Q12	H-10	②
Q13	I-11	②
Q21	D-13	②
Q302	G-8	②
Q303	H-8	②
Q305	G-7	②
Q307	E-5	②
Q308	E-7	②
Q310	E-6	②
Q311	E-6	
Q312	E-7	②
Q313	D-4	②
Q320	E-6	②
Q324	E-5	②
Q325	G-4	②
Q326	G-4	②
Q327	H-4	②
Q328	G-4	②
Q329	G-4	②
Q330	H-4	②
Q332	H-5	②
Q333	H-5	②
Q334	H-5	②
Q337	G-4	②
Q338	H-4	②
Q339	H-4	②
Q341	F-7	②
Q342	B-4	②
Q343	C-4	②
Q344	I-4	②
Q346	B-4	②
Q347	C-4	②
Q349	D-4	②
Q350	B-4	②
Q351	C-4	②
Q352	D-4	②
Q353	C-4	②
Q355	C-4	②
Q367	C-3	②
Q369	D-2	②
Q374	C-3	②
Q378	D-2	②
Q379	E-3	②
Q703	F-9	②
Q712	I-13	②
Q713	I-13	②
Q715	G-9	②
Q716	G-10	②
Q717	C-10	②
Q718	B-11	②
Q722	B-12	②
Q723	B-12	②
Q724	D-6	②
Q725	C-12	②
Q726	D-6	②


1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G H I J
AUDIO
U-COM
3D COMB
TUNER
SENSOR
JUNGLE
DIP
VIDEO
A 1-680-875-11 SONY
A- 1299- 428-A
sample-trial
IC1 IC2 IC3 IC4 IC5 IC6 IC7 IC8 IC9 IC10 IC11 IC12
IC301 IC302 IC303 IC304 IC305 IC306 IC307 IC308 IC309 IC310 IC311 IC312
IC701 IC702 IC703 IC704 IC705 IC706 IC707 IC708 IC709 IC710 IC711
CN1 CN2 CN3 CN4 CN5 CN6 CN7 CN8 CN9 CN10 CN11 CN12 CN13 CN14 CN15 CN16 CN17 CN18 CN701 CN702 CN703 CN704 CN705 CN706
Q1 Q3 Q7 Q11 Q12 Q13 Q21 Q302 Q303 Q305 Q307 Q308 Q310 Q311 Q312 Q313 Q320 Q324 Q325 Q326 Q327 Q328 Q329 Q330 Q332 Q333 Q334 Q337 Q338 Q339 Q341 Q342 Q343 Q344 Q346 Q347 Q349 Q350 Q351 Q352 Q353 Q355 Q367 Q369 Q374 Q378 Q379 Q703 Q712 Q713 Q715 Q716 Q717 Q718 Q722 Q723 Q724 Q725 Q726
D1 D317 D318 D319 D701 D704 D705 D710 D711 D712 D713 D718 D720 D721 D725 D726 D729 D730
PS1 PS701 PS702 UNH009 2.0A
TP1 TP2 TP3 TP4 TP5 TP6 TP7 TP8 TP9 TP10 TP11 TP12 TP13 TP14 TP15 TP16 TP17 TP18 TP19 TP20 TP21 TP22 TP23 TP24 TP25 TP26 TP27 TP28 TP29 TP30 TP31 TP32 TP33 TP34 TP35 TP36 TP37 TP38 TP39 TP40

A [TUNER, VIDEO, AUDIO, SYSTEM CONTROL]

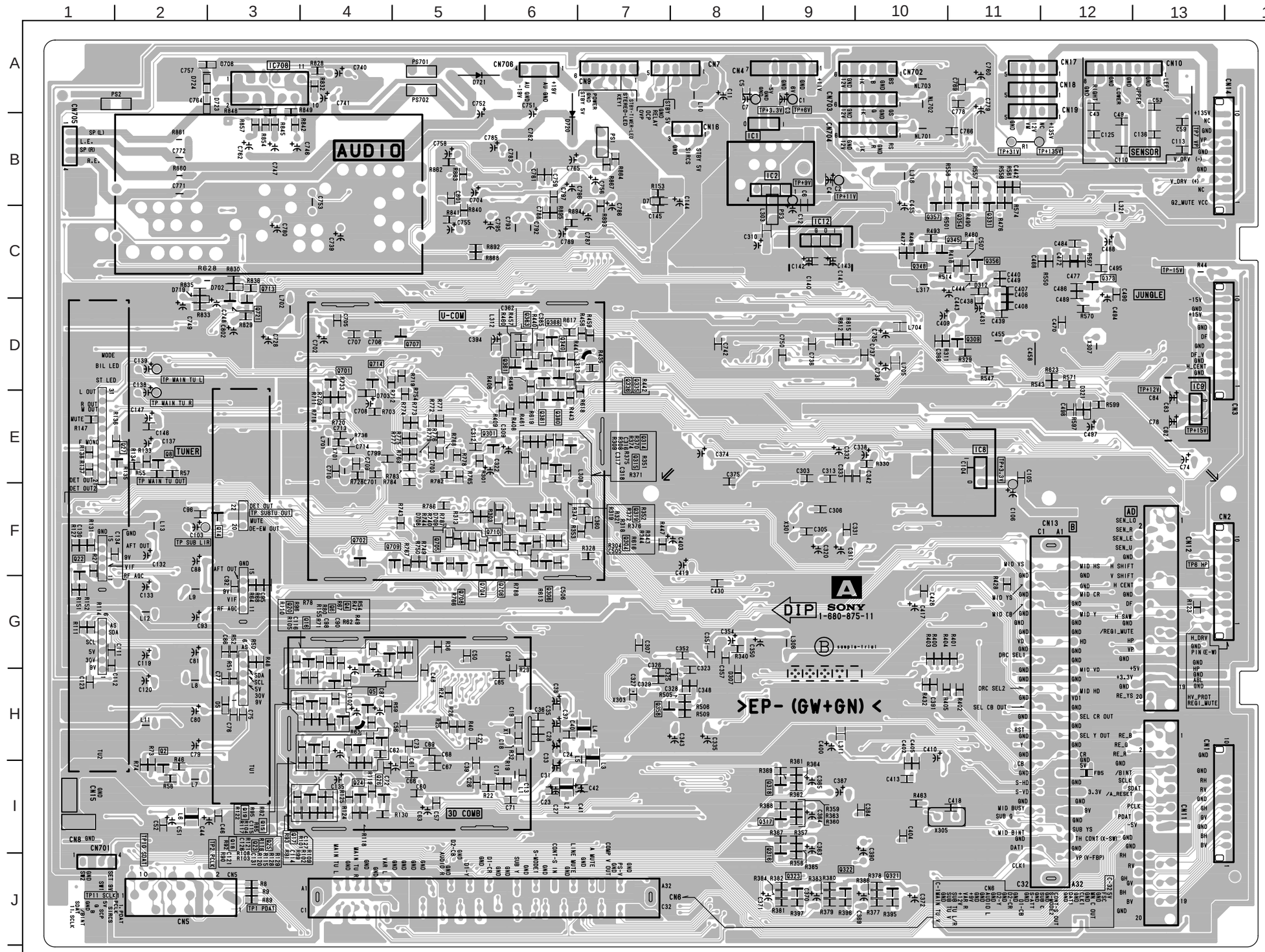
– A Board –

A BOARD

DIODE		*
D5	H-3	③
D7	C-7	③
D307	H-8	③
D312	C-11	③
D321	E-12	③
D702	C-3	③
D703	E-4	③
D706	A-3	③
D708	F-5	③
D709	F-5	③
D719	D-2	③
D720	B-6	
D721	A-5	
D723	A-3	③
D724	A-3	③

IC		
IC1	B-8	
IC2	B-9	
IC8	E-11	
IC9	E-13	
IC12	C-9	
IC708	A-3	

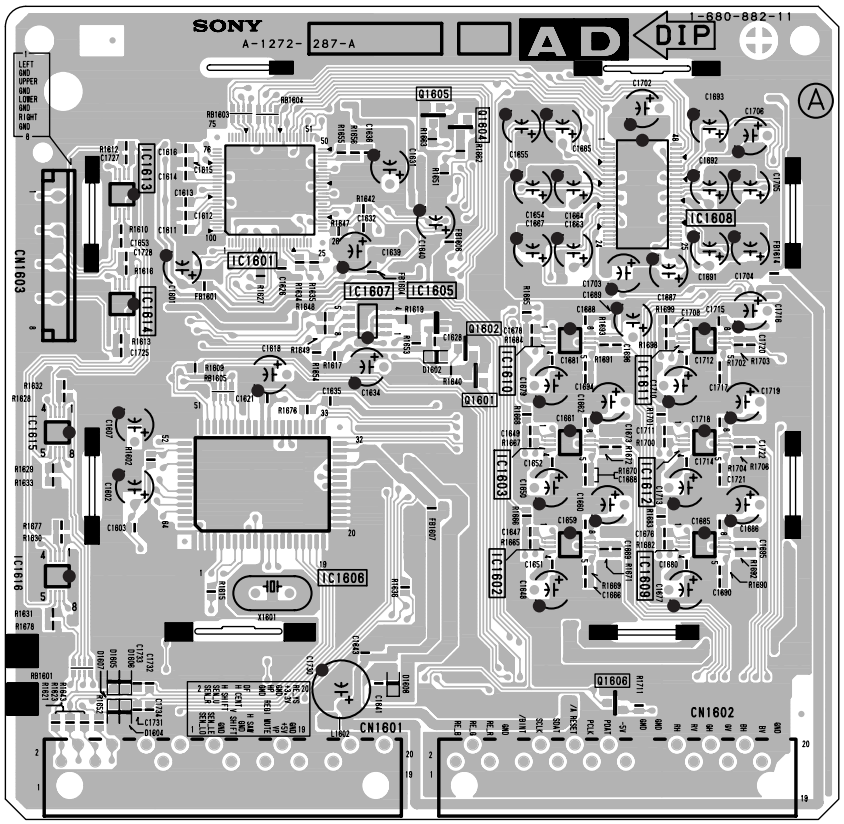
TRANSISTOR *		
Q2	I-2	①
Q4	G-4	①
Q5	H-4	①
Q6	G-4	①
Q8	E-2	①
Q14	F-3	①
Q15	H-4	①
Q16	H-4	①
Q17	I-4	①
Q18	H-4	①
Q19	H-4	①
Q20	G-4	①
Q22	F-1	①
Q23	H-4	①
Q24	I-4	①
Q25	H-4	①
Q26	I-4	①
Q27	E-1	①
Q28	I-4	①
Q301	E-6	①
Q304	F-6	①
Q306	F-6	①
Q309	D-11	①
Q314	E-6	①
Q315	E-6	①
Q316	J-9	①
Q317	I-9	①
Q318	I-9	①
Q319	F-6	①
Q321	J-10	①
Q322	J-10	①
Q323	J-9	①
Q331	C-11	①
Q335	D-6	①
Q336	D-6	①
Q340	D-6	①
Q345	C-11	①
Q348	C-10	①
Q354	C-11	①
Q356	C-11	①
Q357	C-10	①
Q358	H-8	①
Q361	D-6	①
Q363	D-6	①
Q368	D-6	①
Q373	C-12	①
Q380	E-6	①
Q381	E-6	①
Q701	D-4	①
Q702	F-4	①
Q704	F-5	①
Q705	F-5	①
Q706	F-6	①
Q707	D-5	①
Q708	F-5	①
Q709	F-5	①
Q710	F-6	①
Q714	D-4	①
Q721	D-3	①



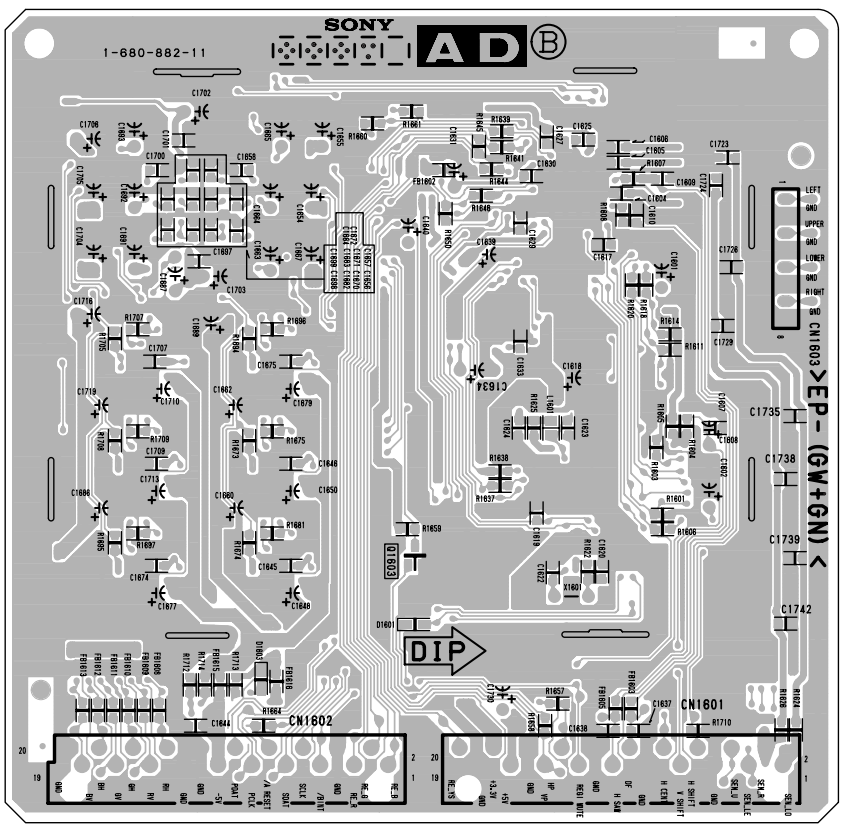
< Conductor Side >

AD [DIGITAL REGI, DJED CPU, PJE DRIVE]

– AD Board –



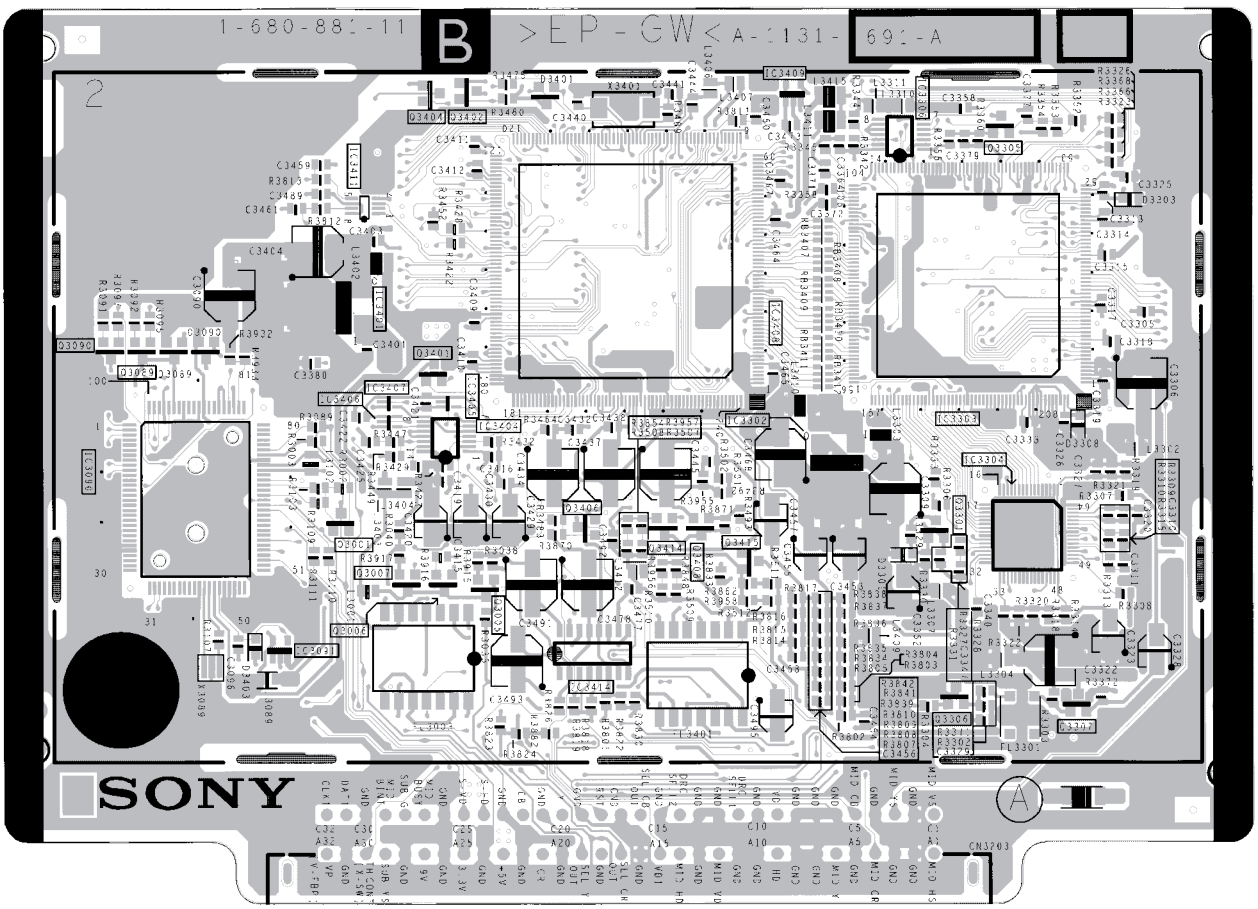
< Component Side >



< Conductor Side >

B [A/D CONVERTER, DRC, MULTI IMAGA DRIVER, MID-U CON, D/A CONVERTER]

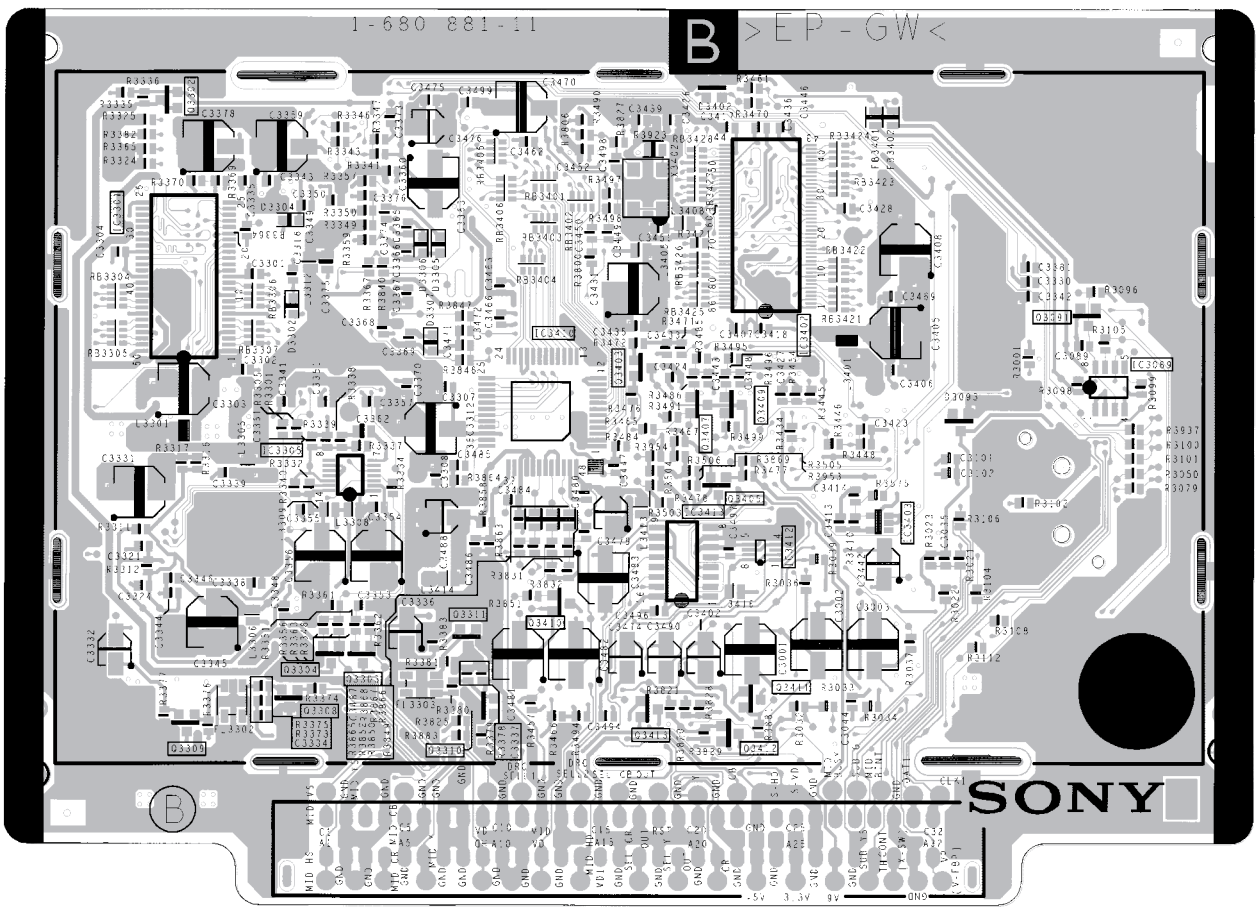
– B Board –



< Component Side >

B [A/D CONVERTER, DRC, MULTI IMAGA DRIVER, MID-U CON, D/A CONVERTER]

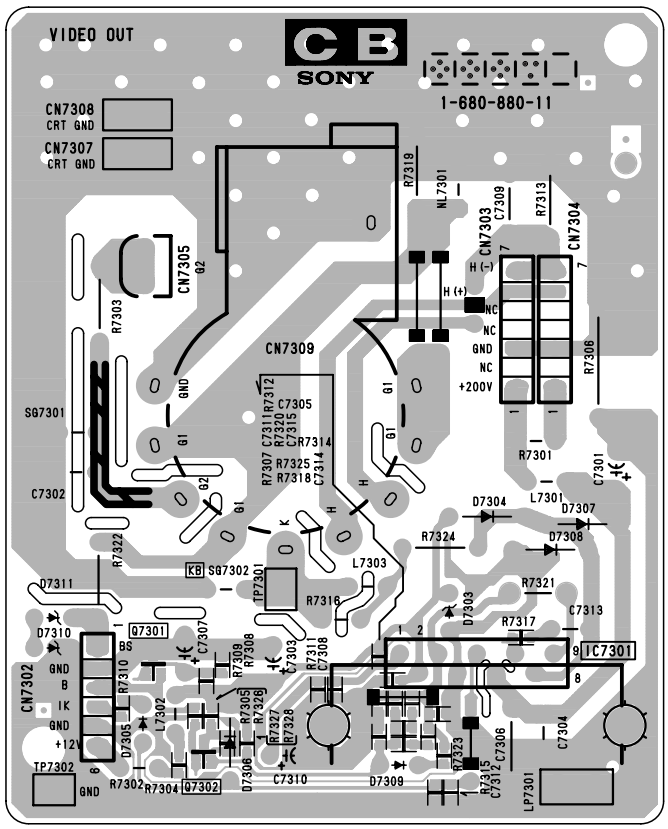
– B Board –



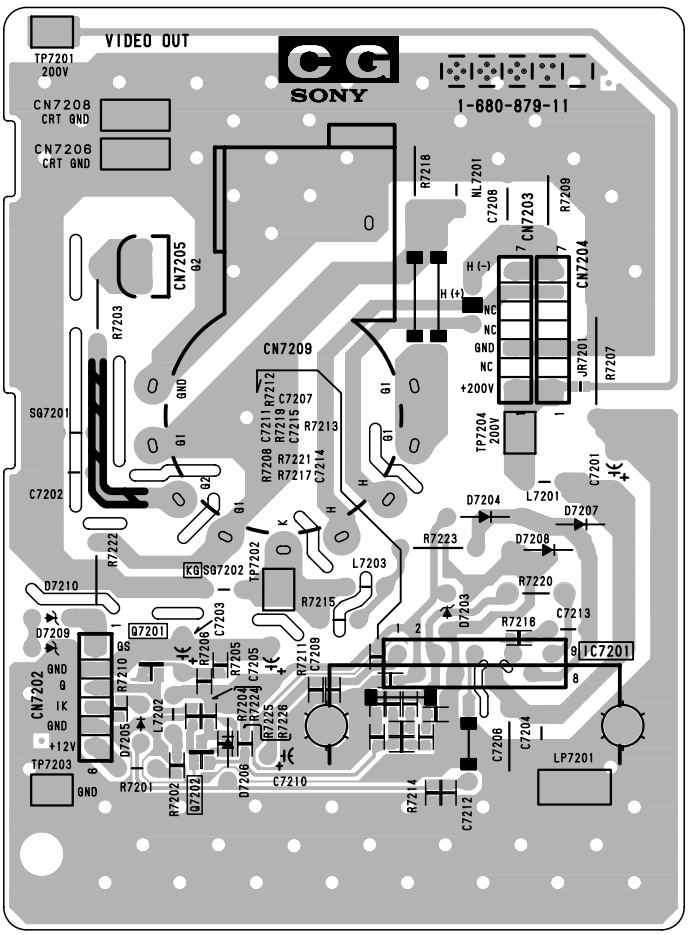
< Conductor Side >

CB [CRT I/F BLUE] **CG** [CRT I/F GREEN] **CR** [CRT I/F RED]

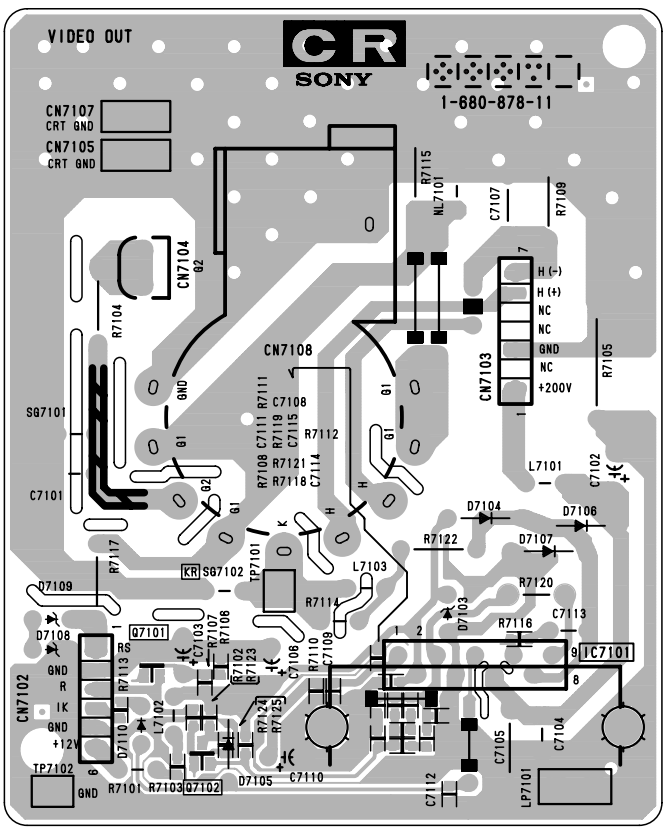
– CB Board –



– CG Board –



– CR Board –



D [HV DRIVE, POWER SUPPLY, H DRIVE]

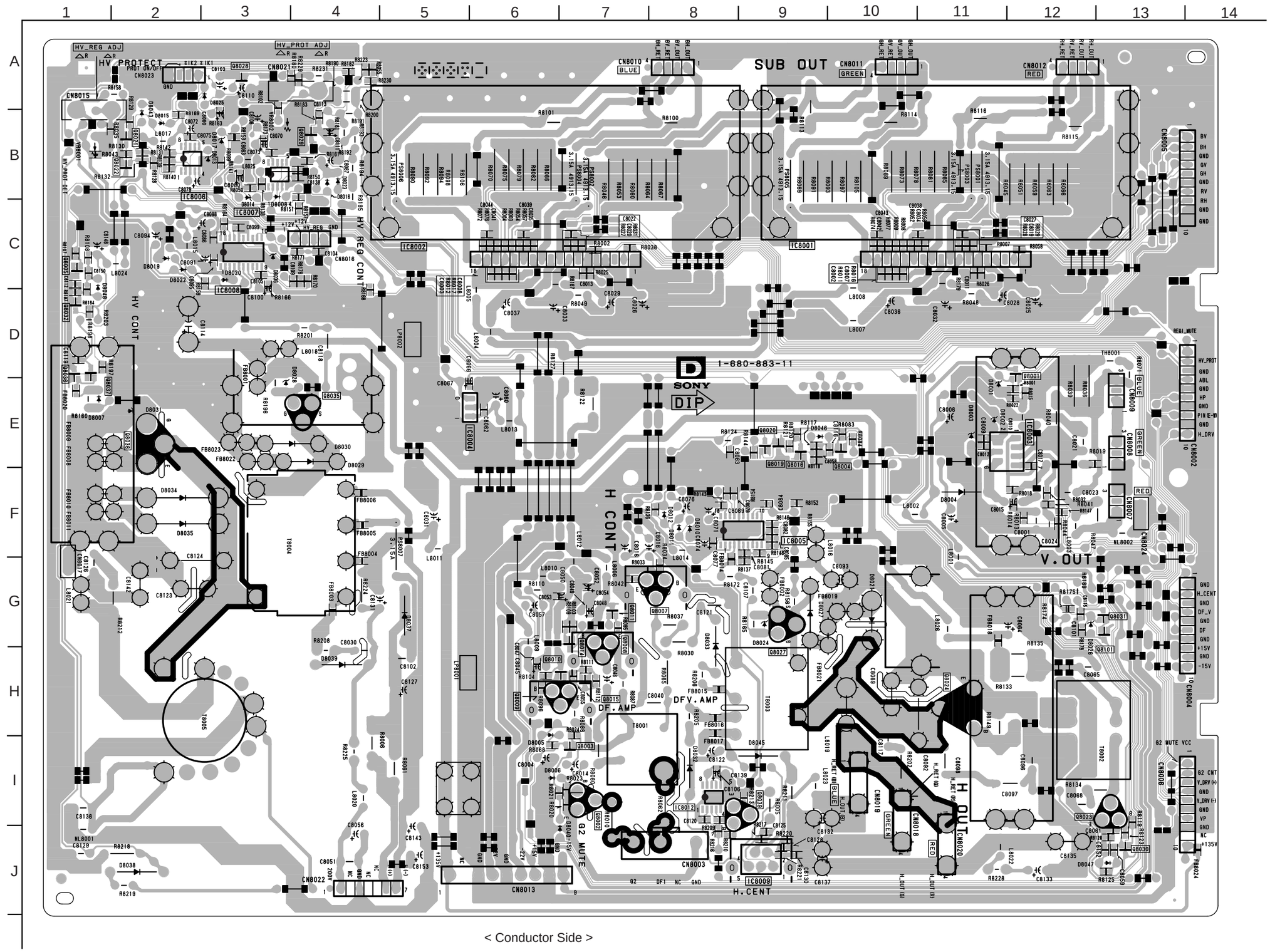
– D Board –

D BOARD

DIODE		*
D8001	E-11	
D8002	E-11	
D8003	E-11	
D8004	F-11	
D8005	H-6	
D8006	I-6	
D8007	E-1	
D8008	C-3	
D8009	E-11	
D8010	F-8	
D8011	F-8	
D8012	F-8	
D8013	B-3	
D8014	C-3	
D8015	B-2	
D8016	B-4	
D8019	C-2	
D8020	C-3	
D8021	G-10	
D8022	C-2	
D8023	B-4	
D8024	G-9	
D8025	A-3	
D8026	G-12	
D8027	G-9	
D8028	E-3	
D8029	E-4	
D8030	E-4	
D8031	E-2	
D8032	I-8	
D8033	H-8	
D8034	F-2	
D8035	F-2	
D8036	C-3	
D8037	G-5	
D8038	J-2	
D8039	H-4	
D8043	B-2	
D8045	I-9	
D8046	E-9	
D8047	J-13	

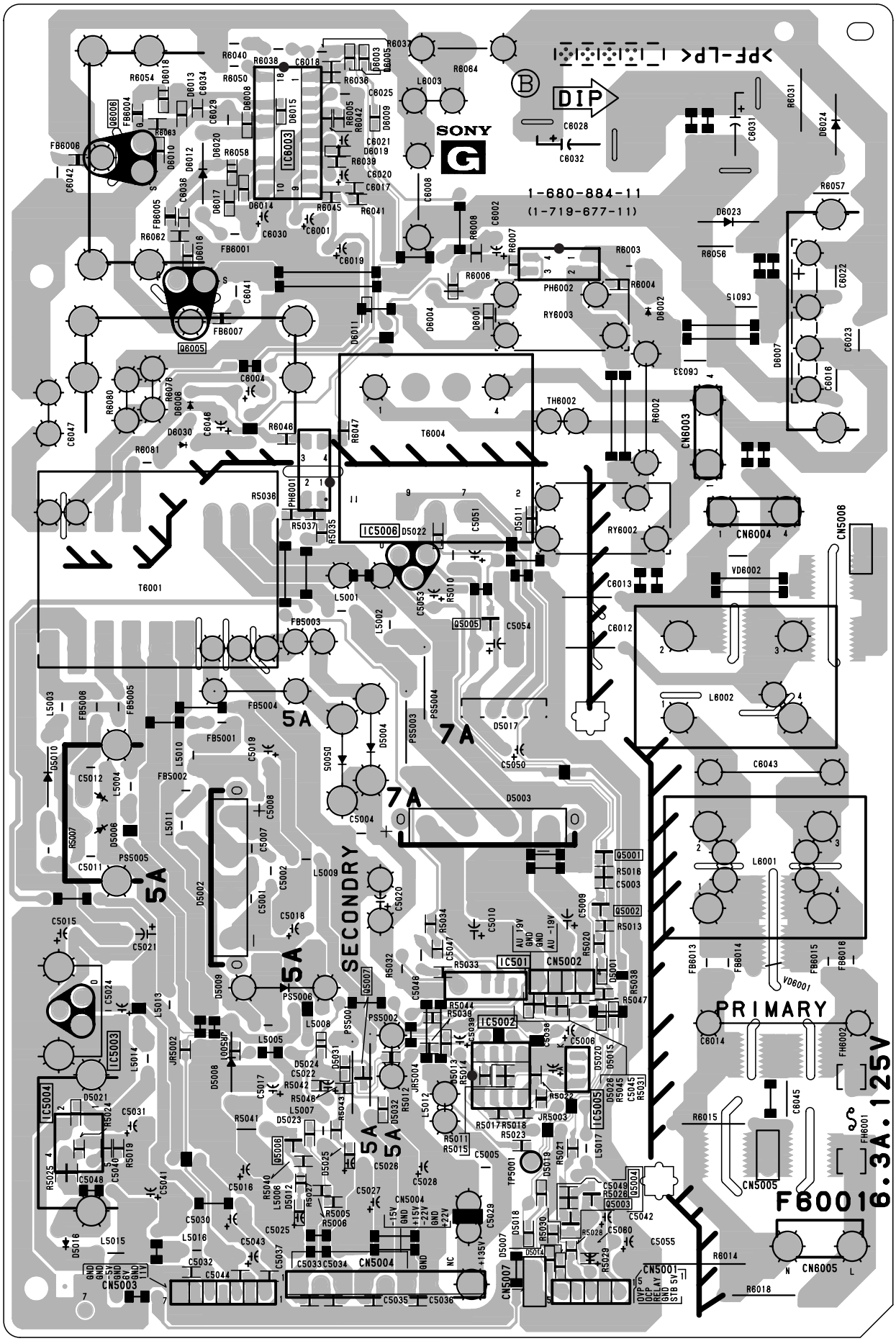
IC		
IC8001	C-11	
IC8002	C-6	
IC8003	E-12	
IC8004	E-5	
IC8005	F-9	
IC8006	B-2	
IC8007	B-3	
IC8008	C-3	
IC8009	J-9	
IC8012	I-8	

TRANSISTOR		*
Q8001	E-12	①
Q8002	I-7	
Q8003	I-7	
Q8004	E-10	①
Q8005	C-1	①
Q8007	G-7	
Q8008	H-7	
Q8009	H-6	
Q8010	H-7	①
Q8011	G-7	①
Q8014	G-7	
Q8015	H-7	①
Q8016	E-9	①
Q8019	E-9	①
Q8020	E-9	①
Q8021	B-2	①
Q8022	B-2	①
Q8023	I-13	
Q8024	H-11	
Q8027	G-9	
Q8028	A-3	①
Q8029	B-4	①
Q8030	J-13	①
Q8031	G-13	①
Q8032	D-1	①
Q8035	I-4	
Q8036	E-1	①
Q8037	E-1	①
Q8038	E-2	
Q8039	I-9	
Q8101	G-13	①



< Conductor Side >

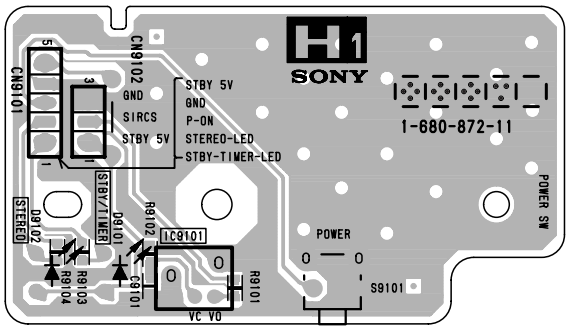
– G Board –


SONY
G
DIP
1-680-884-11
(1-719-677-11)
SECONDRY
PRIMARY
5A
7A
F60016
6.3A.125V
IC6003
IC5006
IC501
IC5002
IC5003
IC5004
IC5005
CN5002
CN5003
CN5004
CN5005
CN5001
CN6003
CN6004
CN6005
CN5006
T6001
T6004
RY6003
RY6002
TH6002
PH6002
PH6001
VD6002
VD6001
L6001
L6002
FB6007
FB6001
FB6002
FB6003
FB6004
FB6005
FB6006
FB6008
FB6013
FB6014
FB6015
FB6016
FB5001
FB5002
FB5003
FB5004
FB5005
FB5006
TP5001
JR5001
JR5002
JR5003
JR5004
JR5005
PS5001
PS5002
PS5003
PS5004
PS5005
PS5006
Q5001
Q5002
Q5003
Q5004
Q5005
Q6005
AU 19V
GND
GND
AU -18V
-15V
GND
+15V
-22V
GND
+22V
+135V
NC
GND
GND
GND
5V
GND
GND
11V
S
OVP
OCP
RELAY
AND
STB 5V

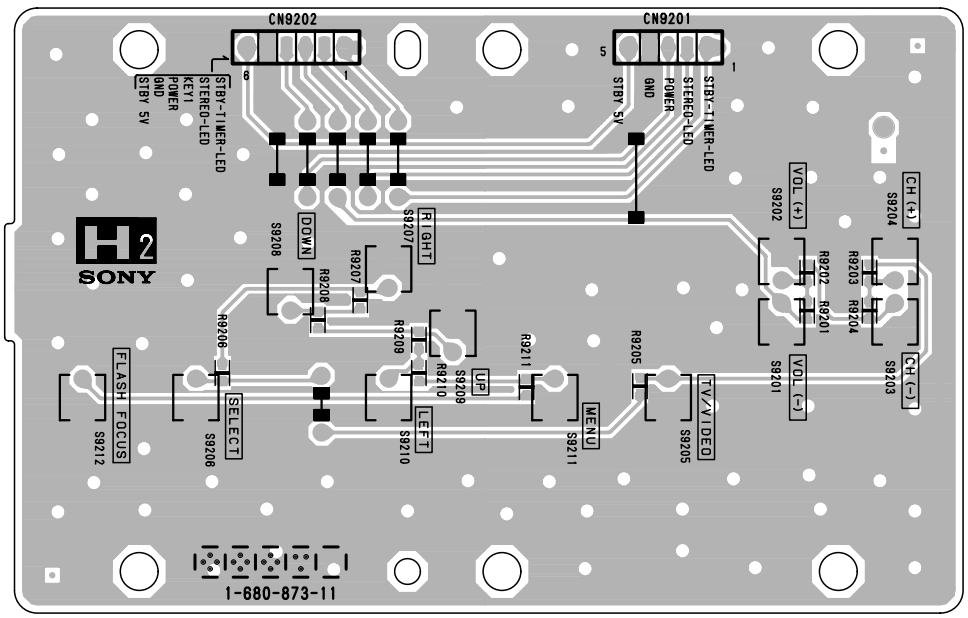
H1 [POWER SWITCH] **H2** [FUNCTION KEK] **H3** [VIDEO 2 INPUT]

H4 [REMOTE CONTROL RECEIVER]

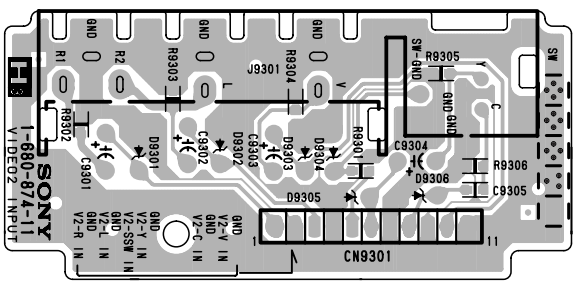
– H1 Board –



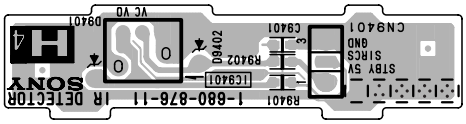
– H2 Board –



– H3 Board –

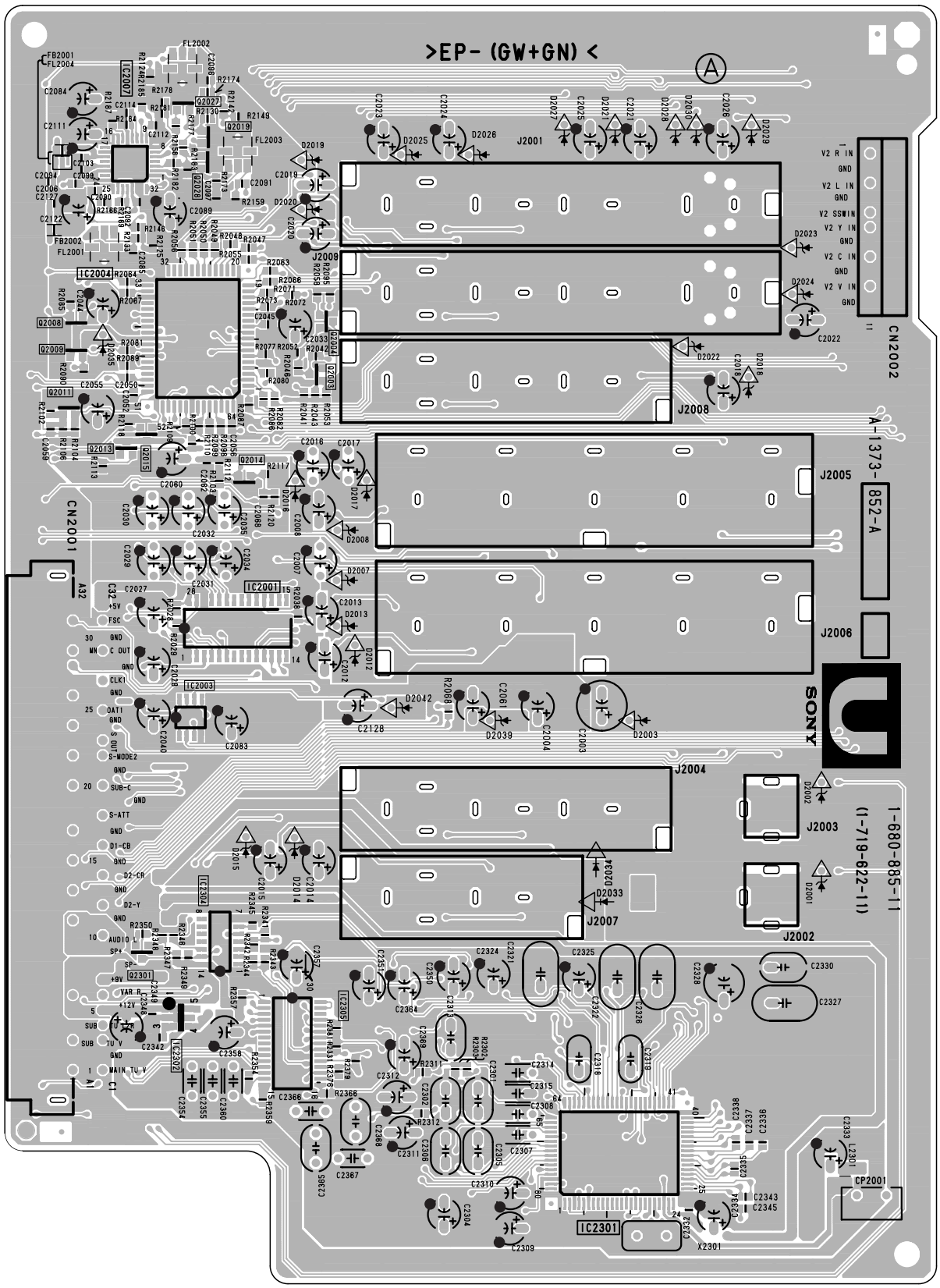


– H4 Board –



U [VIDEO, AUDIO INPUT/OUTPUT, AV SWITCH, AUDIO PROCESSOR]

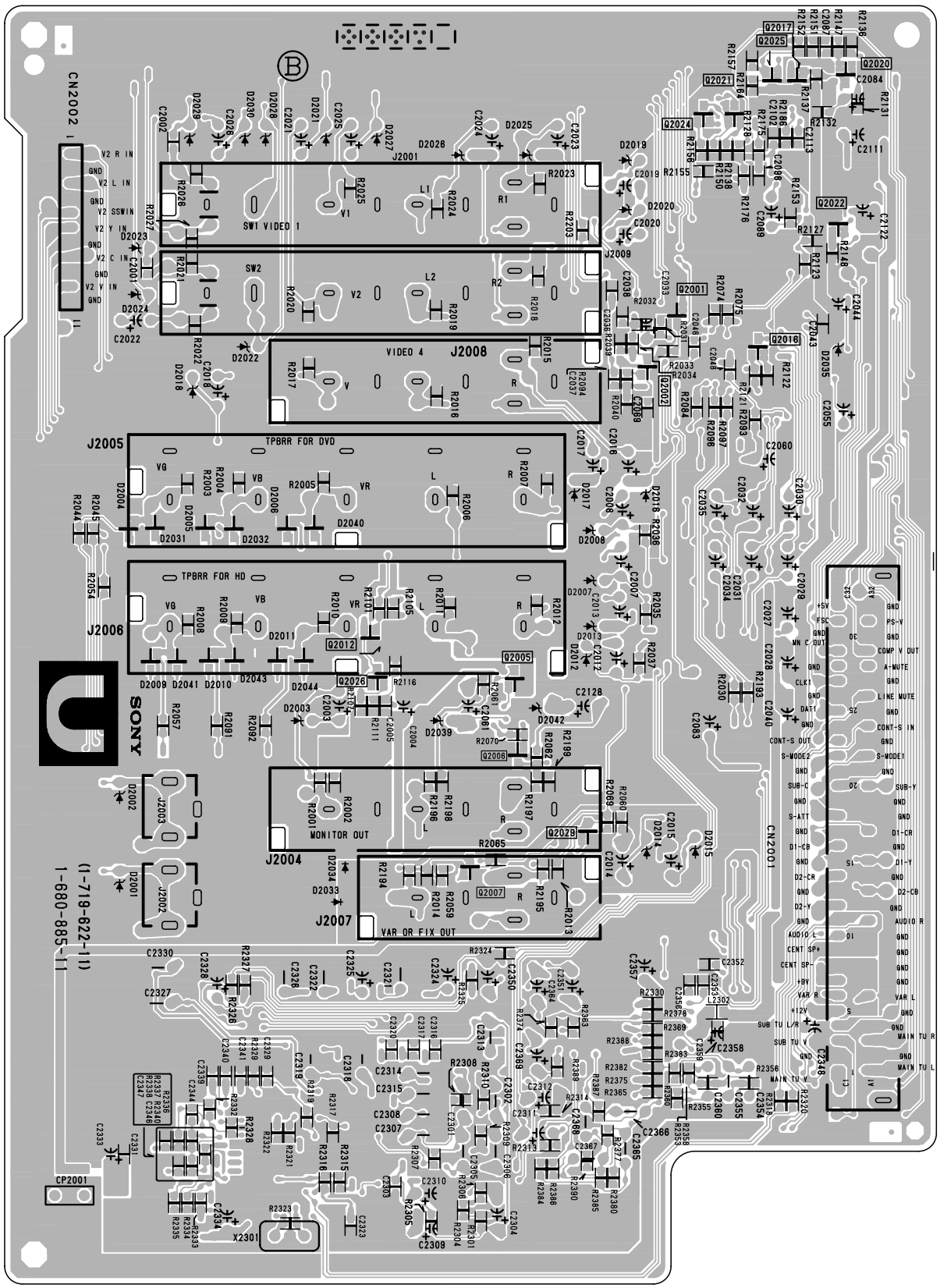
– U Board –



< Component Side >

U [VIDEO, AUDIO INPUT/OUTPUT, AV SWITCH, AUDIO PROCESSOR]

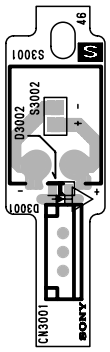
– U Board –



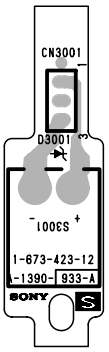
< Conductor Side >

S [SENSOR] **V** [SPEED MODULATION]

– S Board –

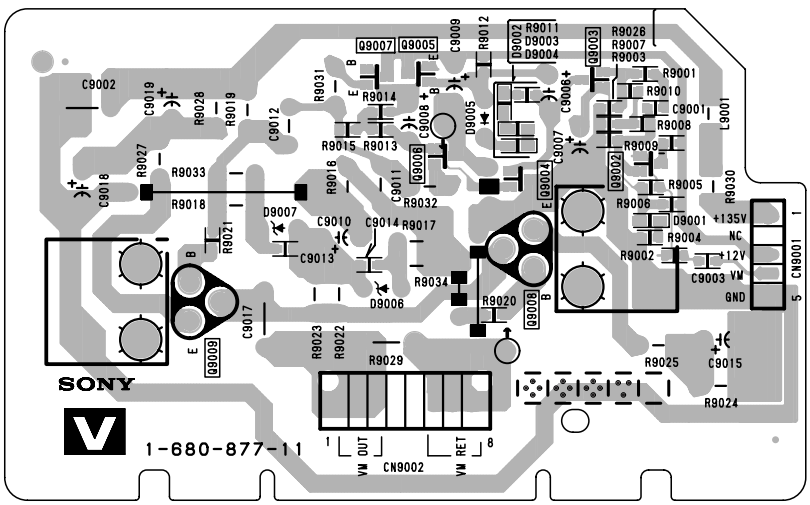


< Component Side >



< Conductor Side >

– V Board –



6-5. WAVEFORMS

• A(1/9) BOARD WAVEFORMS

1

2.1Vp-p (H)

• A(2/9) BOARD WAVEFORMS

2

2.1Vp-p (H)

3

3Vp-p (H)

4

2Vp-p (H)

• A(3/9) BOARD WAVEFORMS

5

2.8Vp-p (20MHz)

6

3.6Vp-p (12MHz)

7

1.6Vp-p (H)

8

2.2p-p (H)

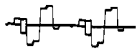
9

1.8Vp-p (H)

10

1.8Vp-p (H)

11



1.8Vp-p (H)

12

3.2Vp-p (H)

13

3.5Vp-p (V)

• A(4/9) BOARD WAVEFORMS

14

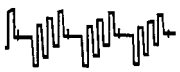
3.6Vp-p (12MHz)

• A(5/9) BOARD WAVEFORMS

15

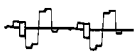
2.2Vp-p (H)

16



2.6Vp-p (H)

17



2.4kVp-p (H)

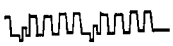
18

4Vp-p (2.7MHz)

19

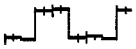
2.9kVp-p (V)

20



4Vp-p (H)

21

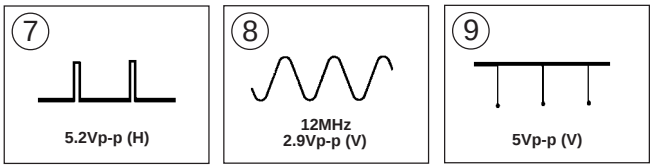


4Vp-p (H)

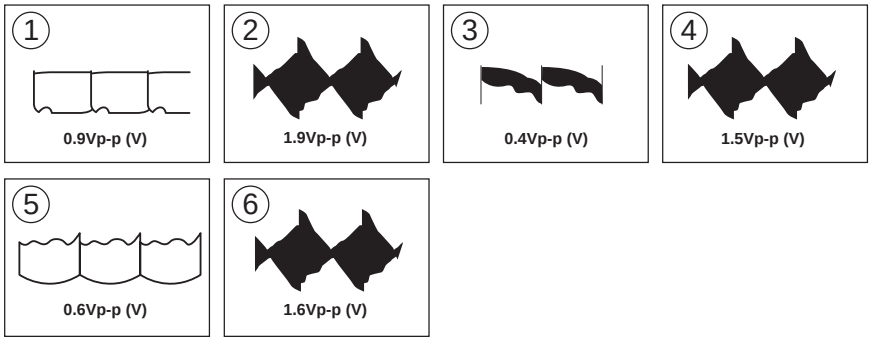
22

4kVp-p (H)

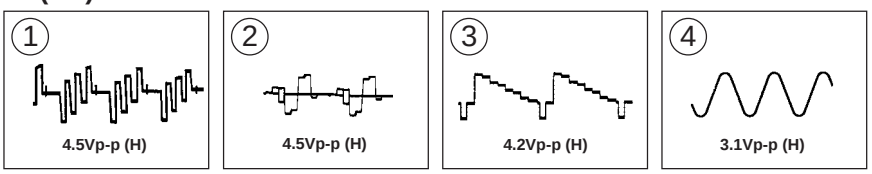
• AD(1/2) BOARD WAVEFORMS



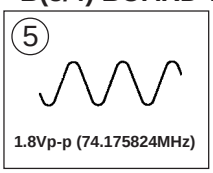
• AD(2/2) BOARD WAVEFORMS



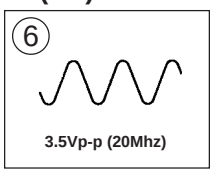
• B(1/4) BOARD WAVEFORMS



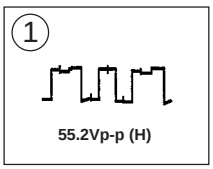
• B(3/4) BOARD WAVEFORMS



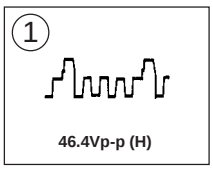
• B(4/4) BOARD WAVEFORMS



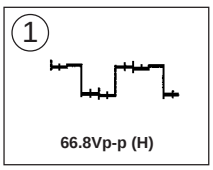
• CR BOARD WAVEFORM



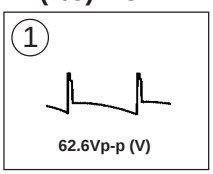
• CB BOARD WAVEFORM



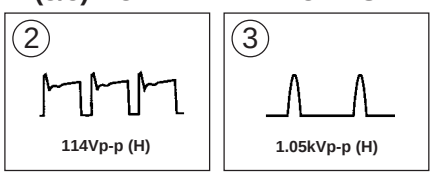
• CG BOARD WAVEFORMS



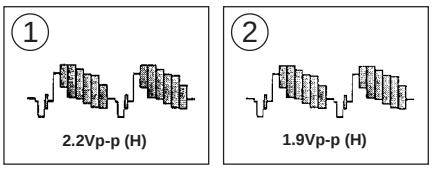
• D(1/3) BOARD WAVEFORMS



• D(3/3) BOARD WAVEFORMS

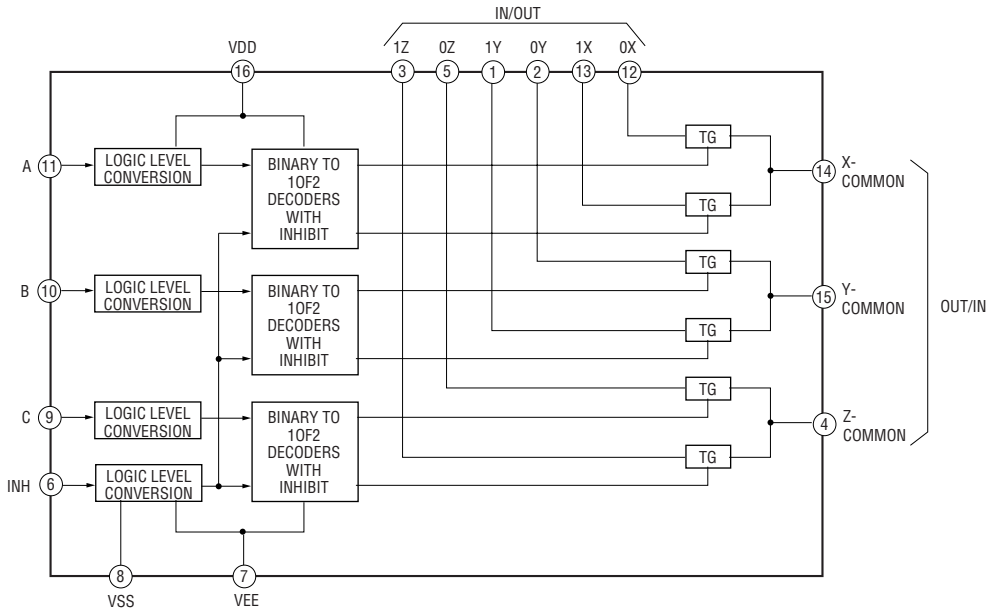


• U(2/3) BOARD WAVEFORMS

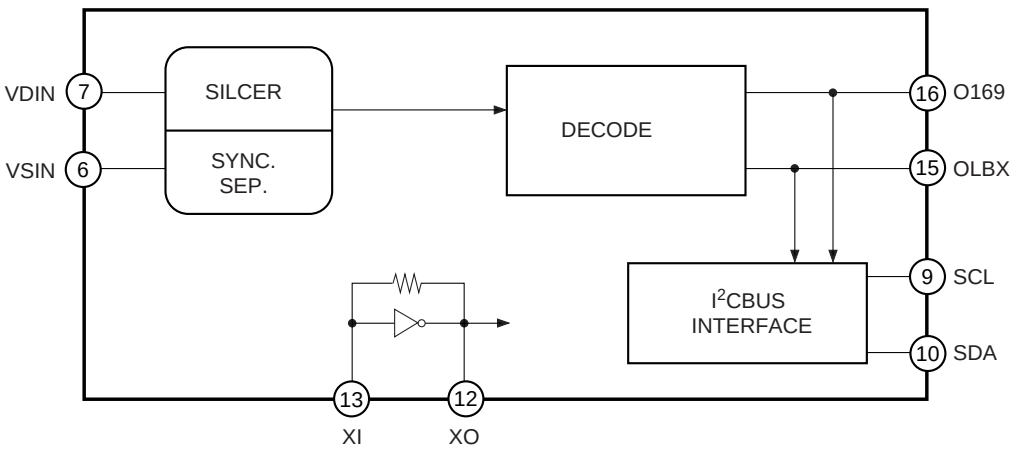


6-6. IC BLOCK DIAGRAMS

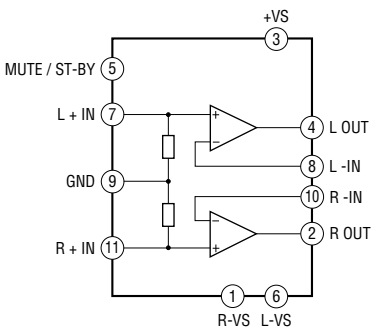
A BOARD : IC305, 307 SN74LV4053ANSR



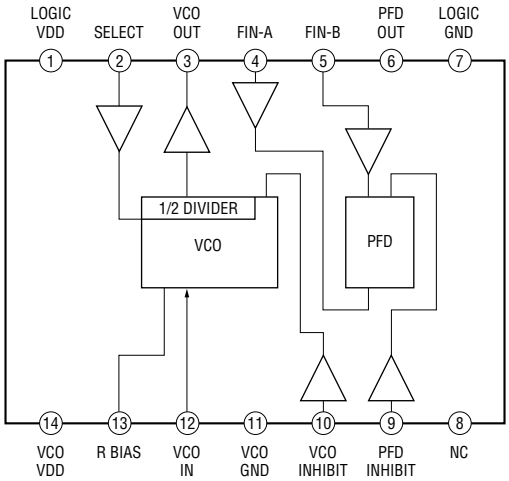
A BOARD : IC308 CXD2085M



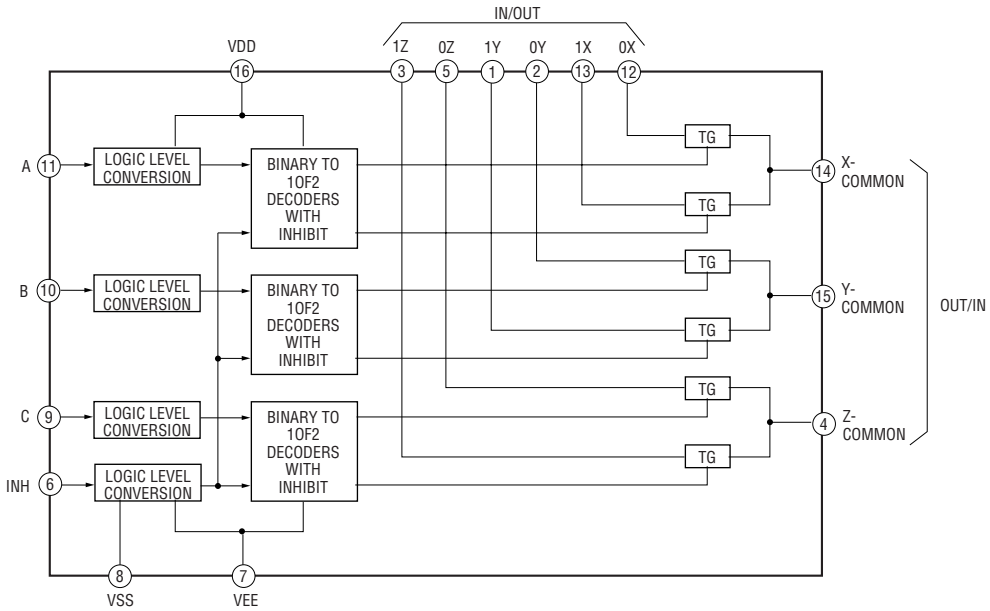
A BOARD : IC708 TDA7265



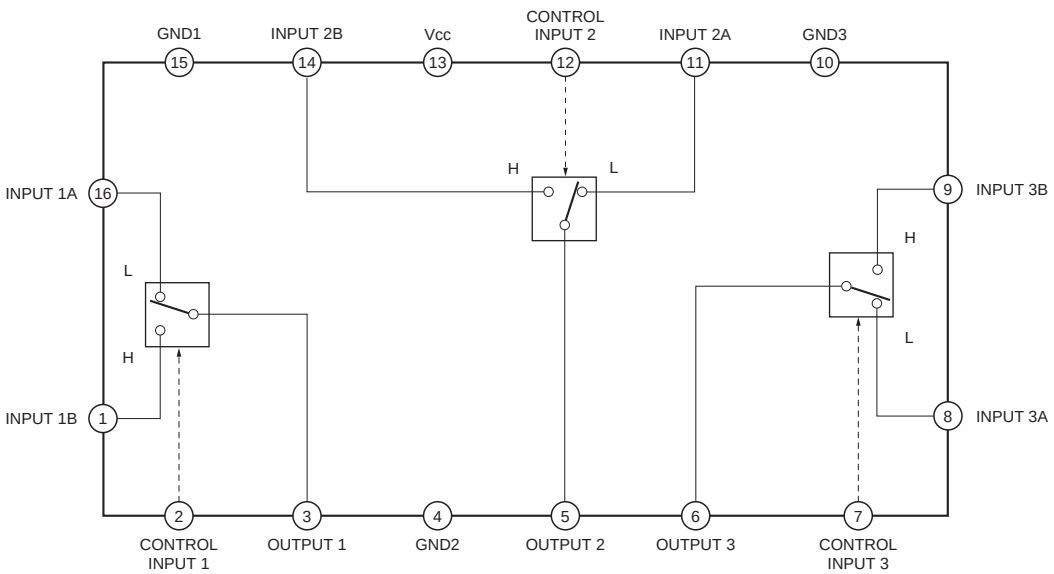
B BOARD : IC3305, 3404 TLC2932IPWR



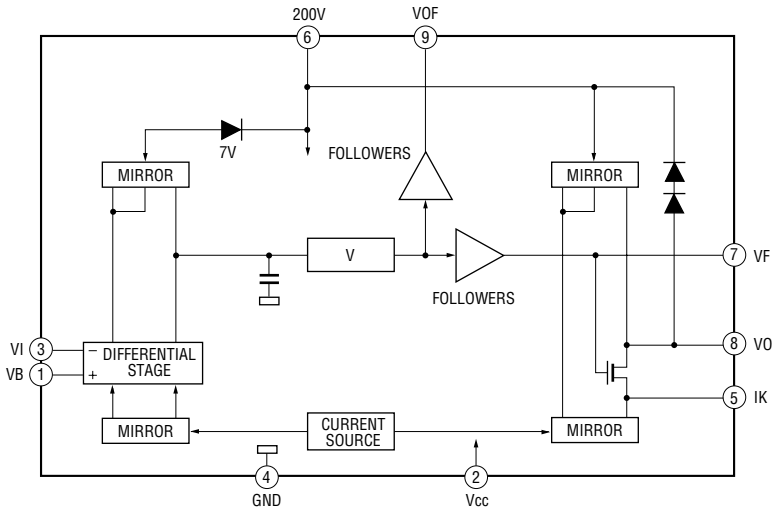
B BOARD : IC3413 SN74LV4053ANSR



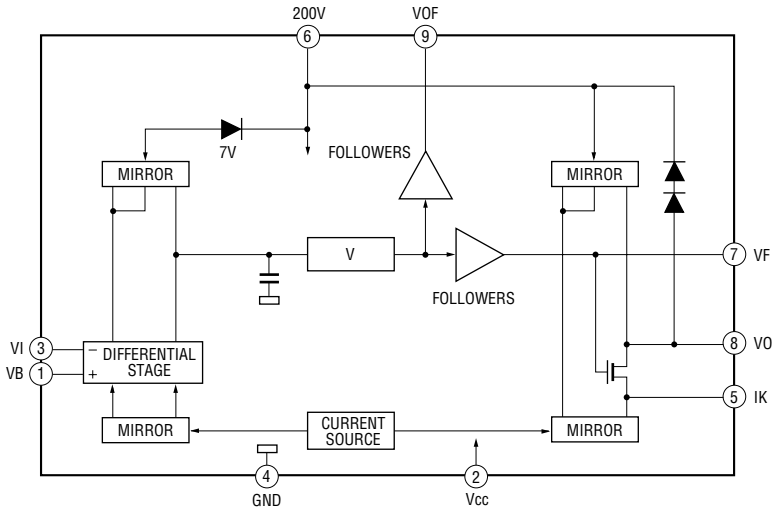
B BOARD : IC3414 M52055P



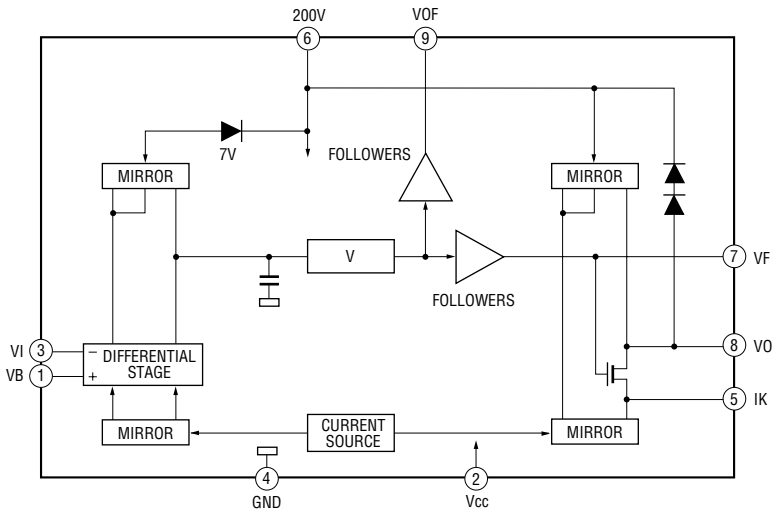
CR BOARD : IC7101 TDA611Q/N4



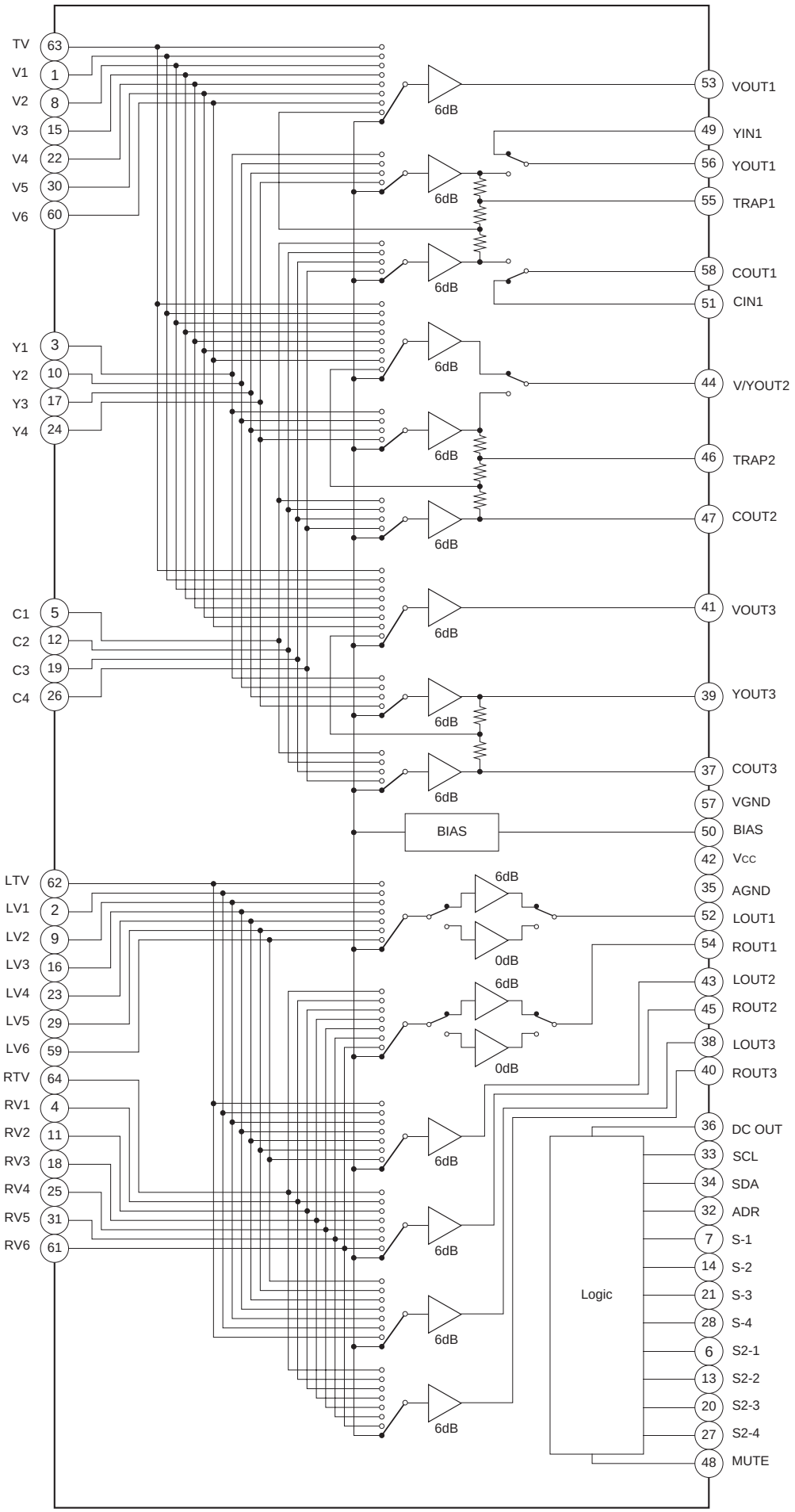
CG BOARD : IC7201 TDA611Q/N4



CB BOARD : IC7301 TDA611Q/N4

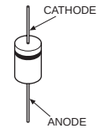


U BOARD : IC2004 CXA2069Q

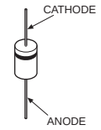


6-7. SEMICONDUCTORS

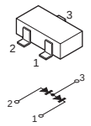
1SS83TD
21DP05
D1NL40-TR2
D1NS4
D2L20U
EL1Z
GP08DPKG23
RD10ES-B2
RD15ES-B2
RD18ES-B2
RD20ES-B2
RD5.6ES-B2
RGP02-17EL-6433
UF4005PKG23



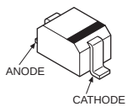
1SS133T-77
30DF4N-FC5
ERC04-06SE
ERC91-02



1SS226



1S355TE-17
DTZ-10B
DTZ-TT11-6.8B
UDZS-TE-17-7.5B
UDZ-TE-17-10B
UDZS-TE-17-18B
UDZS-TE-17-22B
UDZS-TE-17-24B
UDZS-TE-17-3.9B
UDZS-TE-17-33B
UDZS-TE-17-4.7B
UDZS-TE-17-5.1B
UDZS-TE-17-5.6B
UDZS-TE-17-6.2B
UDZS-TE-17-9.1B



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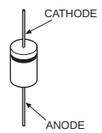

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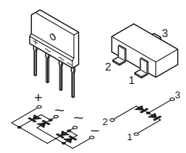

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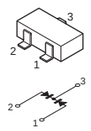

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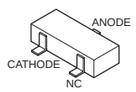

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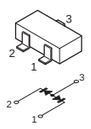

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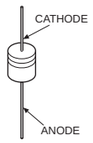

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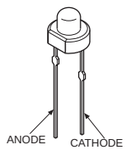

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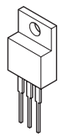

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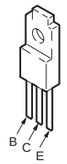

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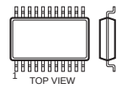

18pin SOP

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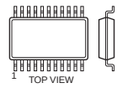

32pin SOP

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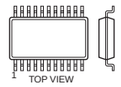

48pin SOP

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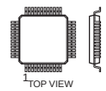

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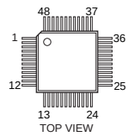

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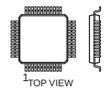

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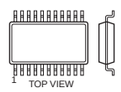

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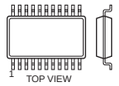

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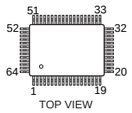

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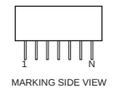
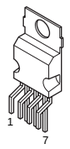


• pin 1 ~ N
• Mt (one side, both side)

14pin DIP

LA78045



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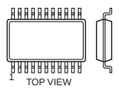

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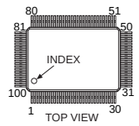

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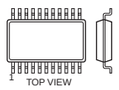

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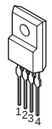

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8pin DIP

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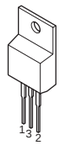

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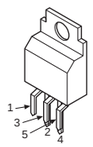

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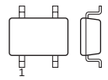

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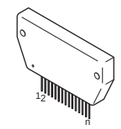

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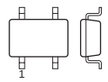

8pin CHIP

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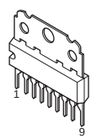

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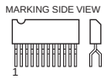

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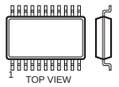

28pin SOP

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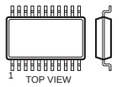

14pin SOP

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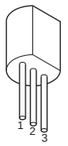

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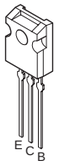

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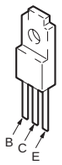

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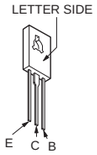

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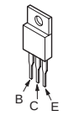

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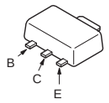

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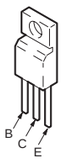


SECTION 7
EXPLODED VIEWS

NOTE:

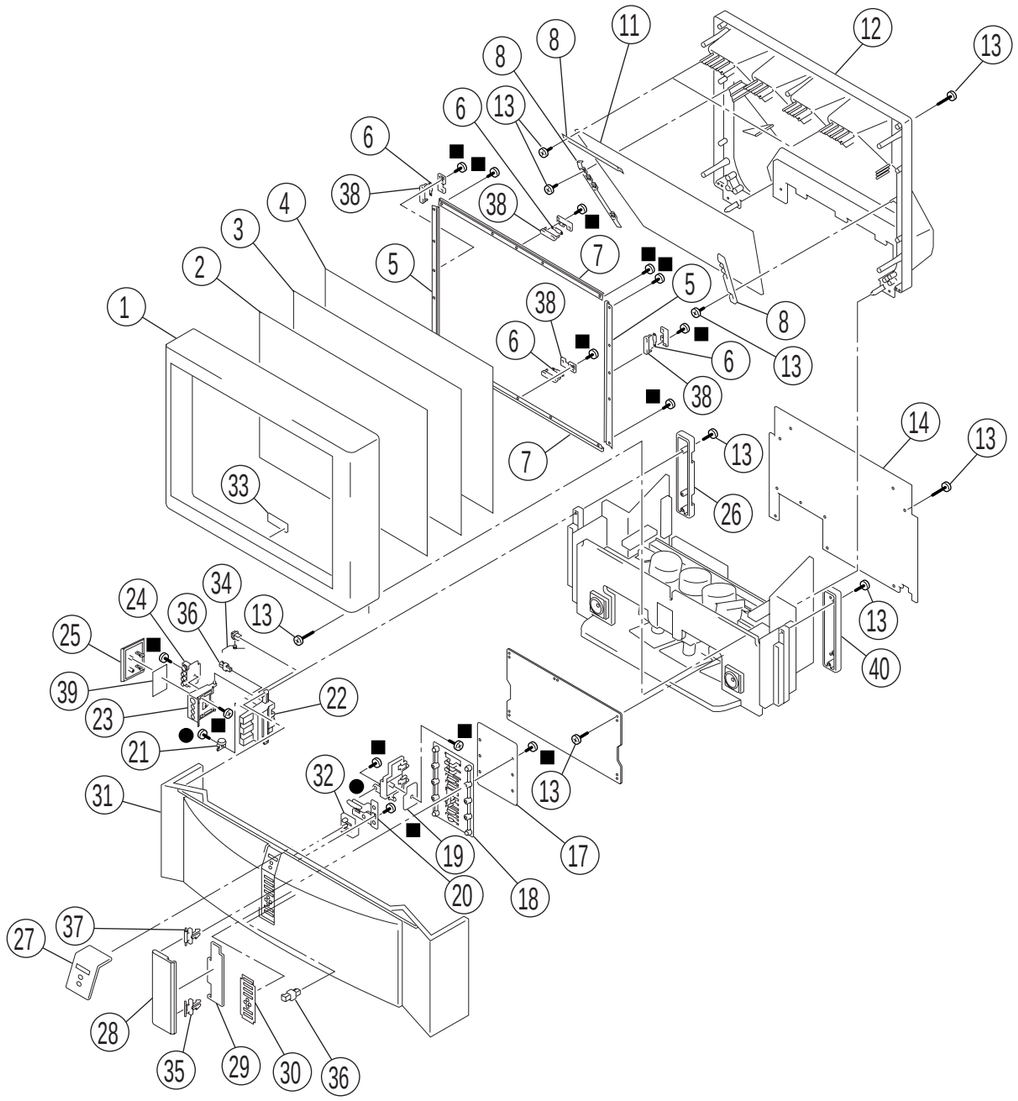
- Items with no part number and no description are not stocked because they are seldom required for routine service
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

7-1. COVER (KP-43HT20)

● : +BVTP 3X12 7-685-648-79
■ : +BVTP 4X12 7-685-661-14

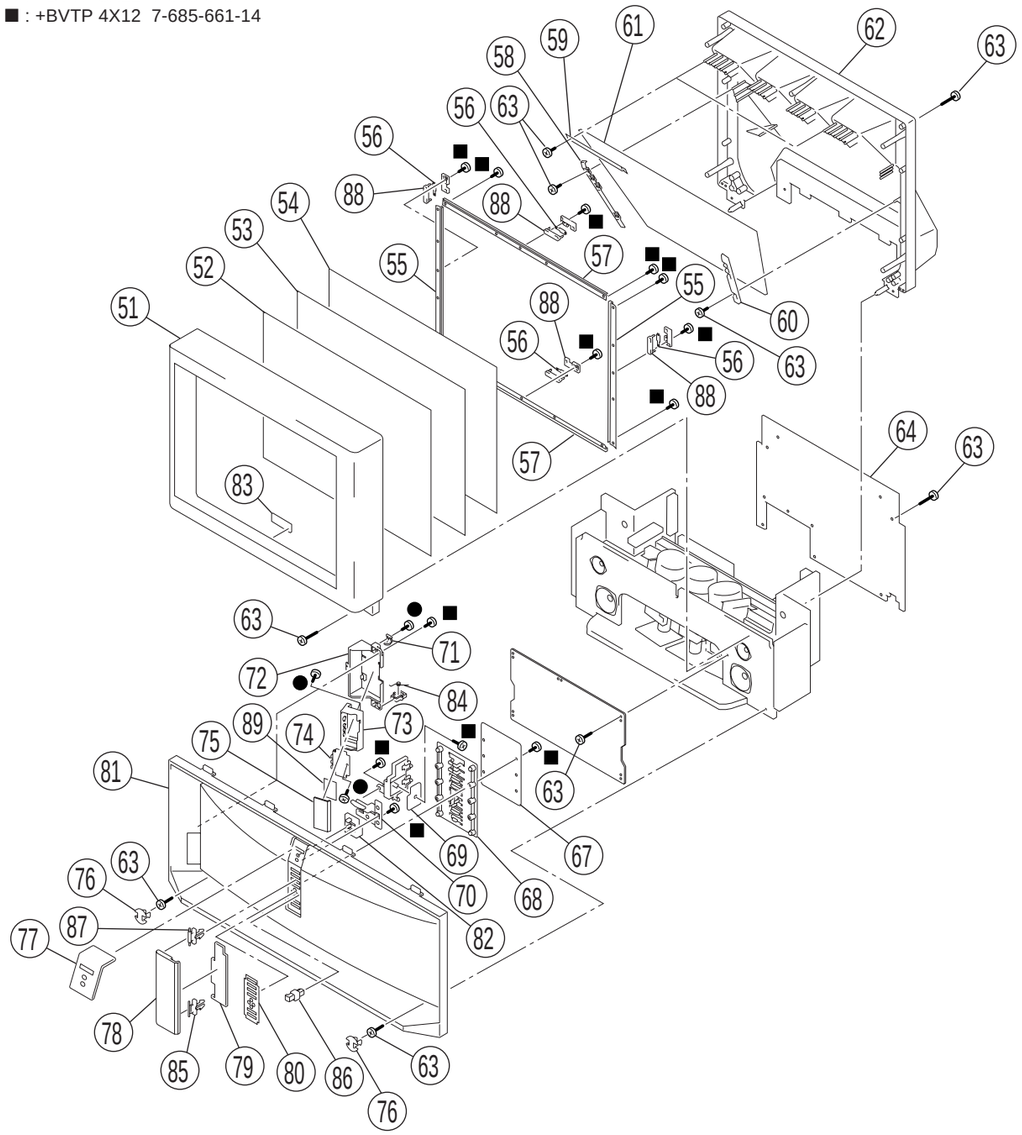


REF. NO.		PART NO.	DESCRIPTION	REMARK
1		X-4038-924-1	BEZNET (43) ASSY	
2		4-081-064-11	SCREEN (43), CONTRAST	
3		4-070-284-11	PLATE (L), DIFFUSION	
4		4-070-285-11	PLATE (43F), DIFFUSION	
5	*	4-070-333-21	HOLDER (S), SCREEN NC	
6	*	A-1391-148-A	S BOARD, COMPLETE	
7	*	4-070-332-31	HOLDER (L), SCREEN NC	
8	*	4-081-501-01	HOLDER, MIRROR	
11		4-082-889-01	MIRROR (43)	
12	*	4-081-500-01	COVER (43), MIRROR	
13		4-081-063-01	SCREW,DOME WASHER HEX TAP 4X20	
14	*	4-083-696-01	BOARD, REAR	
17	*	A-1372-932-A	H2 BOARD, COMPLETE	
18		4-082-284-01	BUTTON, MULTI	
19	*	A-1377-001-A	H1 BOARD, COMPLETE	
20		4-082-283-01	BUTTON, POWER	
21		4-919-393-01	DAMPER	
22		4-082-302-01	HOLDER, SIDE TERMINAL	
23		4-082-301-01	BRACKET, H3	
24	*	A-1372-933-A	H3 BOARD, COMPLETE	

REF. NO.		PART NO.	DESCRIPTION	REMARK
25		4-082-300-11	DOOR, SIDE TERMINAL	
26		4-082-298-01	CAP (L), SPEAKER GRILLE	
27		4-082-280-11	PANEL, FRONT	
28		4-082-281-11	DOOR, CONTROL	
29		4-082-282-01	COVER, CONTROL DOOR	
30		4-082-291-01	LABEL, CONTROL	
31		X-4039-087-1	GRILLE ASSY, SPEAKER	
32		4-082-286-01	GUIDE, LED	
33	*	A-1372-934-A	H4 BOARD, COMPLETE	
34		4-083-694-01	SPRING, DOOR	
35		3-703-035-11	SHAFT, LID	
36		4-042-192-01	CATCHER, PUSH	
37		4-045-250-01	DAMPER	
38	*	4-069-680-01	BRACKET (B), SENSOR	
39		4-082-290-01	LABEL, FRONT TERMINAL	
40		4-082-299-01	CAP (R), SPEAKER GRILLE	

7-2. COVER
(KP-53HS20/HS30/61HS20/HS30)

● : +BVTP 3X12 7-685-648-79
■ : +BVTP 4X12 7-685-661-14



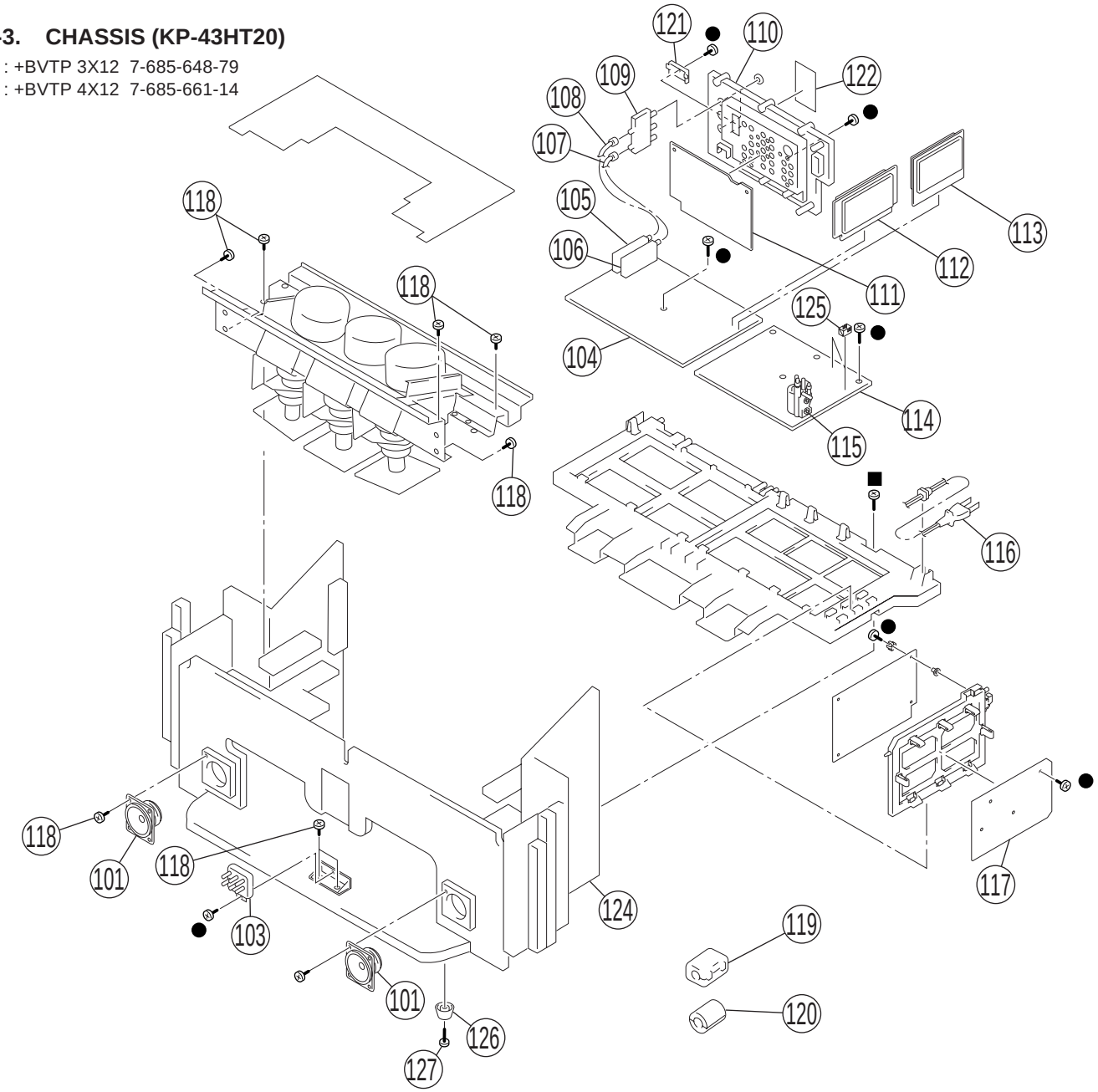
REF. NO.		PART NO.	DESCRIPTION	REMARK
51		X-4038-910-3	BEZNET ASSY (61) (61HS20,61HS30)	
		X-4038-921-1	BEZNET (53) ASSY (53HS30)	
		X-4039-160-1	BEZNET (53) ASSY (53HS20)	
52		4-081-065-11	SCREEN (53), CONTRAST (53HS20,53HS30)	
		4-081-067-11	SCREEN (61), CONTRAST (61HS20,61HS30)	
53		4-070-283-11	PLATE (L), DIFFUSION (61HS20,61HS30)	
		4-070-525-01	PLATE (L), DIFFUSION (53HS20,53HS30)	
54		4-084-702-11	PLATE (F), DIFFUSION (53HS20,53HS30)	
		4-084-704-11	PLATE (61FV), DIFFUSION (61HS20,61HS30)	
55	*	4-070-330-02	HOLDER (S), SCREEN YC (53HS30)	
	*	4-070-333-01	HOLDER (S), SCREEN NC (53HS20)	
	*	4-070-334-02	HOLDER (S), SCREEN YC (61HS30)	
	*	4-070-335-01	HOLDER (S), SCREEN NC (61HS20)	
56	*	A-1391-148-A	S BOARD, COMPLETE	
57	*	4-070-328-12	HOLDER (L), SCREEN YC (53HS30)	
	*	4-070-329-03	HOLDER (L), SCREEN YC (61HS30)	
	*	4-070-331-11	HOLDER (L), SCREEN NC (53HS20)	
	*	4-070-332-02	HOLDER (L), SCREEN NC (61HS20)	
58	*	4-069-689-01	HOLDER (L), MIRROR (61HS20,61HS30)	
	*	4-081-504-01	HOLDER (SL), MIRROR (53HS20,53HS30)	
59	*	4-070-345-01	HOLDER (TOP), MIRROR (61HS20,61HS30)	
	*	4-070-345-11	HOLDER (TOP), MIRROR (53HS20,53HS30)	
60	*	4-069-690-01	HOLDER (R), MIRROR (61HS20,61HS30)	
	*	4-081-505-01	HOLDER (SR), MIRROR (53HS20,53HS30)	
61		4-070-344-01	MIRROR, REFLECTION (53HS20,53HS30)	
		4-070-922-01	MIRROR, REFLECTION (61HS20,61HS30)	
62	*	4-069-695-01	COVER, MIRROR (61HS20,61HS30)	
	*	4-081-503-01	COVER, MIRROR (53HS20,53HS30)	
63		4-081-063-01	SCREW,DOME WASHER HEX TAP 4X20	
64	*	4-083-511-01	BOARD, REAR (53HS20,53HS30)	
	*	4-083-686-01	BOARD, REAR (61HS20,61HS30)	
67	*	A-1372-932-A	H2 BOARD, COMPLETE	
68		4-082-284-01	BUTTON, MULTI	
69	*	A-1377-001-A	H1 BOARD, COMPLETE	
70		4-082-283-01	BUTTON, POWER	
71		4-919-393-01	DAMPER	
72		4-082-289-01	HOLDER, FRONT TERMINAL	
73		4-082-288-01	BRACKET, H3	
74	*	A-1372-933-A	H3 BOARD, COMPLETE	
75		4-082-287-11	DOOR, FRONT TERMINAL(53HS30,61HS30)	
		4-082-287-21	DOOR, FRONT TERMINAL(53HS20,61HS20)	
76		4-083-503-01	SCREW CAP, GRILLE	
77		4-082-280-01	PANEL, FRONT	
78		4-082-281-01	DOOR, CONTROL	
79		4-082-282-01	COVER, CONTROL DOOR	
80		4-082-291-01	LABEL, CONTROL	
81		X-0540-033-1	GRILLE ASSY, SPEAKER (61HS20)	
		X-4039-048-1	GRILLE ASSY, SPEAKER (53HS30)	
		X-4039-085-1	GRILLE ASSY, SPEAKER (61HS30)	
		X-4039-148-1	GRILLE ASSY, SPEAKER (53HS20)	
82		4-082-286-01	GUIDE, LED	
83	*	A-1372-934-A	H4 BOARD, COMPLETE	
84		4-083-694-01	SPRING, DOOR	
85		3-703-035-11	SHAFT, LID	
86		4-042-192-01	CATCHER, PUSH	
87		4-045-250-01	DAMPER	
88	*	4-069-680-01	BRACKET (B), SENSOR	
89		4-082-290-01	LABEL, FRONT TERMINAL	

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

7-3. CHASSIS (KP-43HT20)

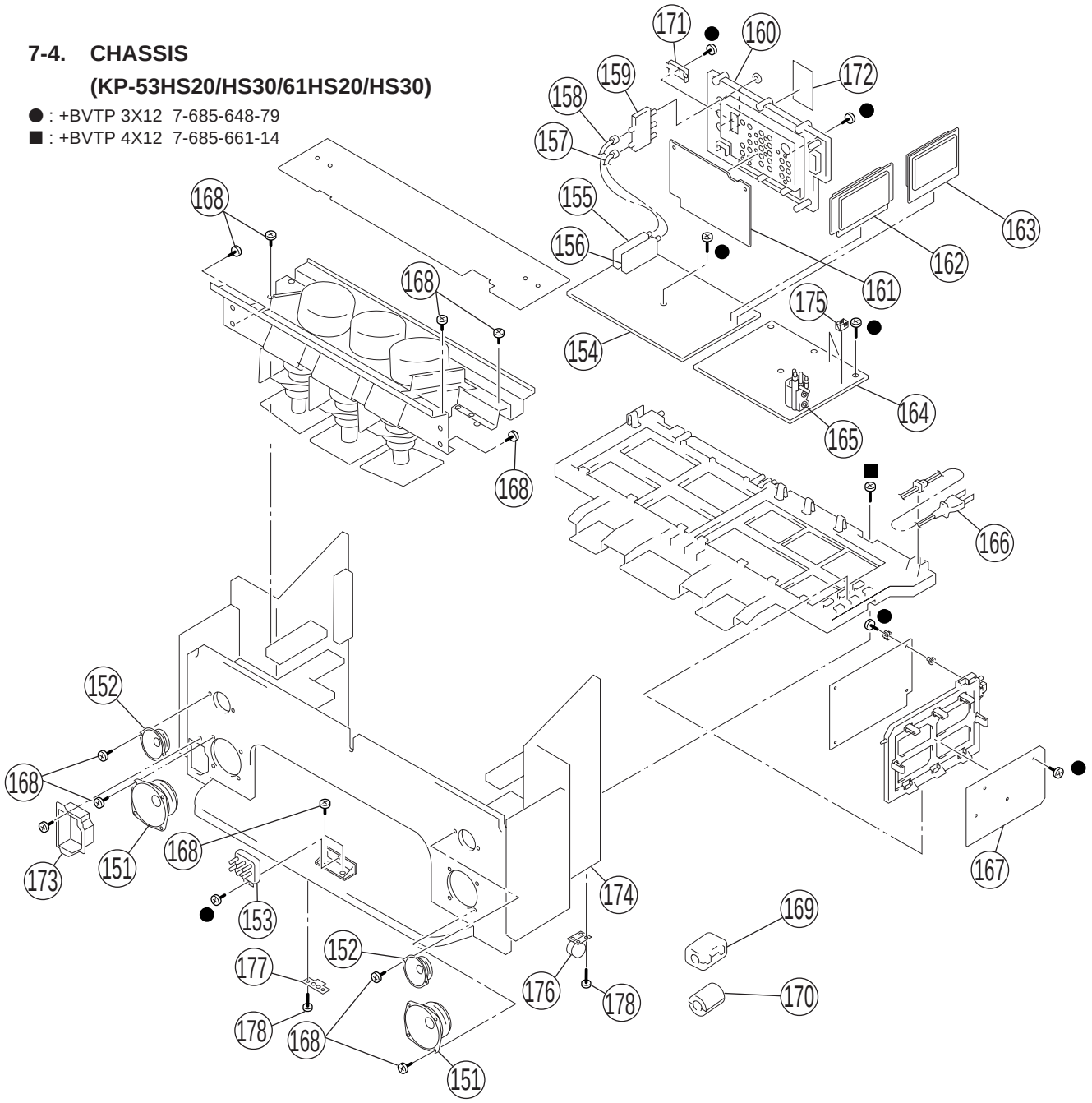
● : +BVTP 3X12 7-685-648-79
■ : +BVTP 4X12 7-685-661-14



REF. NO.		PART NO.	DESCRIPTION	REMARK
101		1-544-893-11	SPEAKER (10CM)	
103	⚠	1-223-925-11	RESISTOR ASSY (FOCUS PACK)	
104	*	A-1299-428-A	A BOARD, COMPLETE	
105		8-598-542-20	TUNER, FSS BTF-WA412 (TU2)	
106		8-598-430-50	TUNER, FSS BTF-FA401 (TU1)	
107	*	1-557-056-31	CABLE, P-P	
108	*	1-556-945-21	CABLE, P-P	
109		1-771-787-11	SWITCH, RF ANTENNA	
110		4-081-961-01	BOARD, TERMINAL	
111	*	A-1373-851-A	U BOARD, COMPLETE	
112	*	A-1136-218-A	B BOARD, COMPLETE	
113	*	A-1299-523-A	AD BOARD, COMPLETE	
114	*	A-1348-038-A	D BOARD, COMPLETE	
115	⚠	1-453-285-21	FBT ASSY, NX-4006//X4P4 (T8005)	
116	⚠	1-790-130-11	CORD, AC POWER(WITH CONNECTOR)	
117	*	A-1316-566-A	G BOARD, COMPLETE	
118		4-378-522-31	SCREW (4X20), TAPPING	
119		1-500-021-11	CLAMP, SLEEVE FERRITE	
120		1-543-653-11	CORE ASSY, BEAD(DIVISION TYPE)	
121		4-069-675-01	CAP, TERMINAL BOARD	
122		4-081-576-01	LABEL, TERMINAL	
124	*	X-4039-086-1	CABINET (43) ASSY, BOTTOM	126
125		3-710-578-01	COVER VOLUME 6 HULD	
126		4-057-611-01	FOOT	
127		4-081-063-01	SCREW,DOME WASHER HEX TAP 4X20	

7-4. CHASSIS
(KP-53HS20/HS30/61HS20/HS30)

● : +BVTP 3X12 7-685-648-79
■ : +BVTP 4X12 7-685-661-14

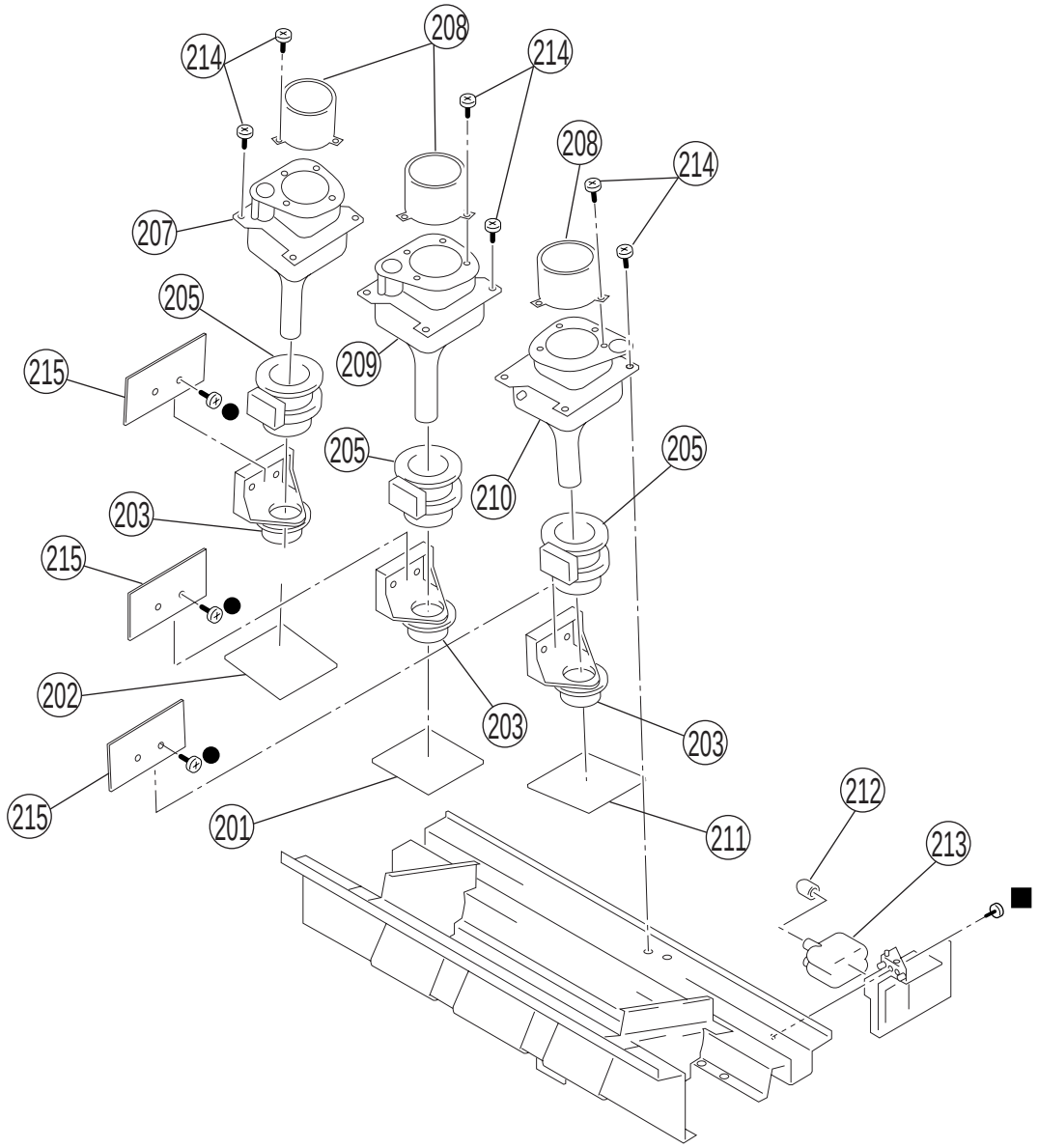


REF. NO.	PART NO.	DESCRIPTION	REMARK
151	1-544-849-11	SPEAKER (13CM)	
152	1-529-403-11	SPEAKER (6.6CM)	
153	⚠ 1-223-925-11	RESISTOR ASSY (FOCUS PACK)	
154	* A-1299-428-A	A BOARD, COMPLETE	
155	8-598-542-20	TUNER, FSS BTF-WA412 (TU2)	
156	8-598-430-50	TUNER, FSS BTF-FA401 (TU1)	
157	* 1-557-056-31	CABLE, P-P	
158	* 1-556-945-21	CABLE, P-P	
159	1-771-787-11	SWITCH, RF ANTENNA	
160	4-081-961-01	BOARD, TERMINAL	
161	* A-1373-851-A	U BOARD, COMPLETE	
162	* A-1136-218-A	B BOARD, COMPLETE	
163	* A-1299-523-A	AD BOARD, COMPLETE	
164	* A-1348-038-A	D BOARD, COMPLETE	
165	⚠ 1-453-285-21	FBT ASSY, NX-4006//X4P4 (T8005)	

REF. NO.	PART NO.	DESCRIPTION	REMARK
166	⚠ 1-790-130-11	CORD, AC POWER(WITH CONNECTOR)	
167	* A-1316-566-A	G BOARD, COMPLETE	
168	4-378-522-31	SCREW (4X20), TAPPING	
169	1-500-021-11	CLAMP, SLEEVE FERRITE	
170	1-543-653-11	CORE ASSY, BEAD(DIVISION TYPE)	
171	4-069-675-01	CAP, TERMINAL BOARD	
172	4-081-576-01	LABEL, TERMINAL	
173	* 4-083-506-01	COVER, CABINET (HS)	
174	* X-4039-049-1	CABINET (53) ASSY, BOTTOM (53HS20,53HS30)	176, 177
	* X-4039-084-1	CABINET ASSY, BOTTOM (61HS20,61HS30)	176, 177
175	3-710-578-01	COVER VOLUME 6 HULD	
176	4-040-755-01	CASTER (DIA. 30)	
177	4-075-020-01	FOOT, PLASTIC	
178	4-081-063-01	SCREW,DOME WASHER HEX TAP 4X20	

7-5. PICTURE TUBE

● : +BVTP 3X12 7-685-648-79
■ : +BVTP 4X12 7-685-661-14



REF. NO.	PART NO.	DESCRIPTION	REMARK
201	*	A-1332-159-A CG BOARD, COMPLETE	
202	*	A-1332-158-A CR BOARD, COMPLETE	
203	⚠	1-451-535-11 COIL ASSY, VM	
205	⚠	1-451-537-11 DEFLECTION YOKE	
207	⚠	A-1501-975-A COUPLER (R) ASSY, CRT	
			(53HS20,53HS30)
	⚠	A-1501-978-A COUPLER (R) ASSY CRT	
			(61HS20,61HS30)
	⚠	A-1501-980-A COUPLER (R) ASSY, CRT (43HT20)	
208		4-040-131-21 LENS (LINNIT POINT 6) (61HS20,61HS30)	
		4-056-258-11 LENS (DELTA 78) (43HT20,53HS20,53HS30)	
209	⚠	A-1501-976-A COUPLER (G) ASSY, CRT	
210	⚠	A-1501-977-A COUPLER (B) ASSY, CRT	
			(53HS20,53HS30)
	⚠	A-1501-979-A COUPLER (B) ASSY CRT	
			(61HS20,61HS30)
	⚠	A-1501-981-A COUPLER (B) ASSY, CRT (43HT20)	
211	*	A-1332-160-A CB BOARD, COMPLETE	
212		4-373-137-01 CAP (Z), RUBBER	
213	⚠	8-598-955-31 BLOCK ASSY, HV HVB-1031	
214		4-052-894-01 SCREW (4X20), HEAD TAPPING	
215	*	A-1342-598-A V BOARD, COMPLETE	

CR

SECTION 8
ELECTRICAL PARTS LIST

The components identified by shading and mark ⚠ are critial for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

When indicating parts by reference number, please include the board name.

- The components identified by in ⊠ this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

- CAPACITORS
  PF : μμ F
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF. NO.	PART NO.	DESCRIPTION			REMARK
*	A-1332-158-A	CR BOARD, COMPLETE			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		< CAPACITOR >			
C7101	1-104-570-11	CERAMIC	0.001UF	10% 2KV	
C7102	1-107-662-11	ELECT	22UF	20% 250V	
C7103	1-126-964-11	ELECT	10UF	20% 50V	
C7104	1-161-830-00	CERAMIC	0.0047UF	500V	
C7105	1-102-050-00	CERAMIC	0.01UF	99% 500V	
C7106	1-126-768-11	ELECT	2200UF	20% 16V	
C7107	1-162-115-00	CERAMIC	330PF	10% 2KV	
C7108	1-107-826-11	CERAMIC CHIP	0.1UF	10% 16V	
C7109	1-107-826-11	CERAMIC CHIP	0.1UF	10% 16V	
C7110	1-126-967-11	ELECT	47UF	20% 50V	
C7112	1-162-927-11	CERAMIC CHIP	100PF	5% 50V	
C7113	1-102-157-00	CERAMIC	560PF	10% 500V	
C7114	1-162-912-11	CERAMIC CHIP	7PF	0.50PF 50V	
C7115	1-162-907-11	CERAMIC CHIP	2PF	0.25PF 50V	
C7116	1-107-504-11	CERAMIC	10PF	500V	
		< CONNECTOR >			
CN7102*	1-564-509-11	PLUG, CONNECTOR 6P			
CN7103*	1-564-510-11	PLUG, CONNECTOR 7P			
CN7104	1-785-879-11	CONNECTOR, ONE TOUCH			
CN7105	1-695-915-11	TAB (CONTACT)			
CN7108⚠	1-251-182-11	SOCKET, CRT			
		< DIODE >			
D7103	8-719-921-88	MTZJ-13B			
D7104	8-719-901-83	1SS83			
D7105	8-719-901-83	1SS83			
D7106	8-719-901-83	1SS83			
D7107	8-719-901-83	1SS83			
D7108	8-719-921-88	MTZJ-13B			
D7109	8-719-921-88	MTZJ-13B			
D7110	8-719-991-33	1SS133T-77			
		< IC >			
IC7101	8-759-360-83	TDA6111Q/N4			

REF. NO.	PART NO.	DESCRIPTION			REMARK
		< COIL >			
L7101	1-414-223-11	INDUCTOR	470UH		
L7102	1-414-187-11	INDUCTOR	47UH		
L7103	1-414-181-11	INDUCTOR	4.7UH		
		< NEON LAMP >			
NL7101	1-517-778-21	LAMP, NEON			
		< TRANSISTOR >			
Q7101	8-729-026-49	2SA1037AK-T146-R			
Q7102	8-729-422-27	2SD601A-Q			
		< RESISTOR >			
R7102	1-216-813-11	RES-CHIP	220	5% 1/16W	
R7103	1-216-864-11	SHORT	0		
R7104	1-260-132-11	CARBON	560K	5% 1/2W	
R7105	1-219-743-11	CARBON	100	5% 1/2W	
R7106	1-218-714-11	METAL CHIP	8.2K	0.5% 1/16W	
R7107	1-218-716-11	METAL CHIP	10K	0.5% 1/16W	
R7108	1-216-823-11	RES-CHIP	1.5K	5% 1/16W	
R7109	1-260-133-11	CARBON	680K	5% 1/2W	
R7110	1-218-710-11	METAL CHIP	5.6K	0.5% 1/16W	
R7111	1-218-718-11	METAL CHIP	12K	0.5% 1/16W	
R7112	1-218-706-11	METAL CHIP	3.9K	0.5% 1/16W	
R7113	1-216-813-11	RES-CHIP	220	5% 1/16W	
R7114	1-249-424-11	CARBON	3.9K	5% 1/4W	
R7115	1-260-328-11	CARBON	1K	5% 1/2W	
R7116	1-216-811-11	RES-CHIP	150	5% 1/16W	
R7117	1-260-087-11	CARBON	100	5% 1/2W	
R7118	1-218-696-11	METAL CHIP	1.5K	0.5% 1/16W	
R7119	1-218-701-11	METAL CHIP	2.4K	0.5% 1/16W	
R7120	1-215-929-11	METAL OXIDE	100K	5% 3W	
R7121	1-216-864-11	SHORT	0		
R7122	1-260-093-11	CARBON	330	5% 1/2W	
R7123	1-216-864-11	SHORT	0		
		< SPARK GAP >			
SG7101	1-519-422-11	GAP, SPARK			
SG7102	1-517-729-31	GAP, SPARK			

****

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

CG **CB**

REF. NO.	PART NO.	DESCRIPTION			REMARK
*	A-1332-159-A	CG BOARD, COMPLETE			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		< CAPACITOR >			
C7201	1-107-662-11	ELECT	22UF	20%	250V
C7202	1-104-570-11	CERAMIC	0.001UF	10%	2KV
C7203	1-126-964-11	ELECT	10UF	20%	50V
C7204	1-161-830-00	CERAMIC	0.0047UF	500V	
C7205	1-126-768-11	ELECT	2200UF	20%	16V
C7206	1-102-050-00	CERAMIC	0.01UF	99%	500V
C7207	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C7208	1-162-115-00	CERAMIC	330PF	10%	2KV
C7209	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C7210	1-126-967-11	ELECT	47UF	20%	50V
C7212	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C7213	1-102-157-00	CERAMIC	560PF	10%	500V
C7214	1-162-913-11	CERAMIC CHIP	8PF	0.50PF	50V
C7215	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
		< CONNECTOR >			
CN7202*	1-564-509-11	PLUG, CONNECTOR 6P			
CN7203*	1-564-510-11	PLUG, CONNECTOR 7P			
CN7204*	1-564-510-11	PLUG, CONNECTOR 7P			
CN7205	1-785-879-11	CONNECTOR, ONE TOUCH			
CN7206	1-695-915-11	TAB (CONTACT)			
CN7208	1-695-915-11	TAB (CONTACT)			
CN7209⚠	1-251-182-11	SOCKET, CRT			
		< DIODE >			
D7203	8-719-921-88	MTZJ-13B			
D7204	8-719-901-83	1SS83			
D7205	8-719-991-33	1SS133T-77			
D7206	8-719-901-83	1SS83			
D7207	8-719-901-83	1SS83			
D7208	8-719-901-83	1SS83			
D7209	8-719-921-88	MTZJ-13B			
D7210	8-719-921-88	MTZJ-13B			
		< IC >			
IC7201	8-759-360-83	TDA6111Q/N4			
		< JUMPER RESISTOR >			
JR7201	1-216-864-11	SHORT	0		
		< COIL >			
L7201	1-414-223-11	INDUCTOR	470UH		
L7202	1-414-187-11	INDUCTOR	47UH		
L7203	1-414-181-11	INDUCTOR	4.7UH		
		< NEON LAMP >			
NL7201	1-517-778-21	LAMP, NEON			
		< TRANSISTOR >			
Q7201	8-729-026-49	2SA1037AK-T146-R			
Q7202	8-729-422-27	2SD601A-Q			
		< RESISTOR >			
R7202	1-216-864-11	SHORT	0		
R7203	1-260-132-11	CARBON	560K	5%	1/2W
R7204	1-216-813-11	RES-CHIP	220	5%	1/16W
R7205	1-218-713-11	METAL CHIP	7.5K	0.5%	1/16W
R7206	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R7207	1-219-743-11	CARBON	100	5%	1/2W
R7208	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R7209	1-260-133-11	CARBON	680K	5%	1/2W
R7210	1-216-813-11	RES-CHIP	220	5%	1/16W
R7211	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R7212	1-218-718-11	METAL CHIP	12K	0.5%	1/16W
R7213	1-218-707-11	METAL CHIP	4.3K	0.5%	1/16W
R7215	1-249-424-11	CARBON	3.9K	5%	1/4W
R7216	1-216-811-11	RES-CHIP	150	5%	1/16W
R7217	1-218-696-11	METAL CHIP	1.5K	0.5%	1/16W
R7218	1-260-328-11	CARBON	1K	5%	1/2W
R7219	1-218-699-11	METAL CHIP	2K	0.5%	1/16W
R7220	1-215-929-11	METAL OXIDE	100K	5%	3W
R7221	1-216-864-11	SHORT	0		
R7222	1-260-087-11	CARBON	100	5%	1/2W
R7223	1-260-093-11	CARBON	330	5%	1/2W
R7224	1-216-864-11	SHORT	0		
		< SPARK GAP >			
SG7201	1-519-422-11	GAP, SPARK			
SG7202	1-517-729-31	GAP, SPARK			
*	A-1332-160-A	CB BOARD, COMPLETE			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		< CAPACITOR >			
C7301	1-107-662-11	ELECT	22UF	20%	250V
C7302	1-104-570-11	CERAMIC	0.001UF	10%	2KV
C7303	1-126-768-11	ELECT	2200UF	20%	16V
C7304	1-161-830-00	CERAMIC	0.0047UF	500V	
C7305	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C7306	1-102-050-00	CERAMIC	0.01UF	99%	500V
C7307	1-126-964-11	ELECT	10UF	20%	50V
C7308	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C7309	1-162-115-00	CERAMIC	330PF	10%	2KV
C7310	1-126-967-11	ELECT	47UF	20%	50V
C7312	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C7313	1-102-157-00	CERAMIC	560PF	10%	500V
C7314	1-162-913-11	CERAMIC CHIP	8PF	0.50PF	50V
C7315	1-162-907-11	CERAMIC CHIP	2PF	0.25PF	50V

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

CB **V**

REF. NO.	PART NO.	DESCRIPTION			REMARK
		< CONNECTOR >			
CN7302*	1-564-509-11	PLUG, CONNECTOR 6P			
CN7303*	1-564-510-11	PLUG, CONNECTOR 7P			
CN7304*	1-564-510-11	PLUG, CONNECTOR 7P			
CN7305	1-785-879-11	CONNECTOR, ONE TOUCH			
CN7307	1-695-915-11	TAB (CONTACT)			
CN7308	1-695-915-11	TAB (CONTACT)			
CN7309⚠	1-251-182-11	SOCKET, CRT			
		< DIODE >			
D7303	8-719-921-88	MTZJ-13B			
D7304	8-719-901-83	1SS83			
D7305	8-719-991-33	1SS133T-77			
D7306	8-719-901-83	1SS83			
D7307	8-719-901-83	1SS83			
D7308	8-719-901-83	1SS83			
D7309	8-719-991-33	1SS133T-77			
D7310	8-719-921-88	MTZJ-13B			
D7311	8-719-921-88	MTZJ-13B			
		< IC >			
IC7301	8-759-360-83	TDA6111Q/N4			
		< COIL >			
L7301	1-414-223-11	INDUCTOR	470UH		
L7302	1-414-187-11	INDUCTOR	47UH		
L7303	1-414-181-11	INDUCTOR	4.7UH		
		< NEON LAMP >			
NL7301	1-517-778-21	LAMP, NEON			
		< TRANSISTOR >			
Q7301	8-729-026-49	2SA1037AK-T146-R			
Q7302	8-729-026-49	2SA1037AK-T146-R			
		< RESISTOR >			
R7301	1-249-393-11	CARBON	10	5%	1/4W
R7303	1-260-132-11	CARBON	560K	5%	1/2W
R7304	1-216-864-11	SHORT	0		
R7305	1-216-813-11	RES-CHIP	220	5%	1/16W
R7306	1-219-743-11	CARBON	100	5%	1/2W
R7308	1-218-713-11	METAL CHIP	7.5K	0.5%	1/16W
R7309	1-218-718-11	METAL CHIP	12K	0.5%	1/16W
R7310	1-216-813-11	RES-CHIP	220	5%	1/16W
R7311	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R7312	1-218-718-11	METAL CHIP	12K	0.5%	1/16W
R7313	1-260-133-11	CARBON	680K	5%	1/2W
R7314	1-218-702-11	METAL CHIP	2.7K	0.5%	1/16W
R7316	1-249-424-11	CARBON	3.9K	5%	1/4W
R7317	1-216-811-11	RES-CHIP	150	5%	1/16W
R7318	1-218-696-11	METAL CHIP	1.5K	0.5%	1/16W
R7319	1-260-328-11	CARBON	1K	5%	1/2W
R7320	1-218-701-11	METAL CHIP	2.4K	0.5%	1/16W
R7321	1-215-929-11	METAL OXIDE	100K	5%	3W
R7322	1-260-087-11	CARBON	100	5%	1/2W
R7323	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R7324	1-260-093-11	CARBON	330	5%	1/2W
R7325	1-216-864-11	SHORT	0		
R7327	1-216-864-11	SHORT	0		
R7328	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
		< SPARK GAP >			
SG7301	1-519-422-11	GAP, SPARK			
SG7302	1-517-729-31	GAP, SPARK			

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* A-1342-598-A V BOARD, COMPLETE
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4-382-854-11 SCREW (M3X10), P, SW (+)

< CAPACITOR >

C9002	1-104-999-11	MYLAR	0.1UF	10%	200V
C9003	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C9006	1-126-935-11	ELECT	470UF	20%	6.3V
C9007	1-126-933-11	ELECT	100UF	20%	16V
C9008	1-126-935-11	ELECT	470UF	20%	6.3V
C9009	1-126-933-11	ELECT	100UF	20%	16V
C9010	1-107-667-11	ELECT	2.2UF	20%	160V
C9011	1-107-364-11	MYLAR	0.01UF	10%	200V
C9012	1-107-364-11	MYLAR	0.01UF	10%	200V
C9013	1-162-964-11	CERAMIC CHIP	0.001UF	10%	50V
C9014	1-162-964-11	CERAMIC CHIP	0.001UF	10%	50V
C9015	1-126-935-11	ELECT	470UF	20%	16V
C9017	1-104-999-11	MYLAR	0.1UF	10%	200V
C9018	1-107-638-11	ELECT	33UF	20%	160V
C9019	1-126-935-11	ELECT	470UF	20%	16V

< CONNECTOR >

CN9001*	1-564-508-11	PLUG, CONNECTOR 5P
CN9002*	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P

< DIODE >

D9001	8-719-404-50	MA111-TX
D9002	8-719-404-50	MA111-TX
D9003	8-719-404-50	MA111-TX
D9003	8-719-988-61	1SS355TE-17
D9004	8-719-404-50	MA111-TX
D9005	8-719-510-02	D1NS4
D9006	8-719-924-13	MTZJ-T-77-22B
D9007	8-719-924-13	MTZJ-T-77-22B

< COIL >

L9001	1-412-525-31	INDUCTOR	10UH

< TRANSISTOR >

Q9002	8-729-422-27	2SD601A-Q
Q9003	8-729-422-27	2SD601A-Q
Q9004	8-729-026-49	2SA1037AK-T146-R
Q9005	8-729-422-27	2SD601A-Q
Q9006	8-729-026-49	2SA1037AK-T146-R
Q9007	8-729-422-27	2SD601A-Q

REF. NO.	PART NO.	DESCRIPTION			REMARK
Q9008	8-729-045-04	2SC5511			
Q9009	8-729-045-05	2SA2005			
		< RESISTOR >			
R9002	1-216-805-11	RES-CHIP	47	5%	1/16W
R9004	1-216-820-11	RES-CHIP	820	5%	1/16W
R9005	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R9006	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R9007	1-216-809-11	RES-CHIP	100	5%	1/16W
R9008	1-216-803-11	RES-CHIP	33	5%	1/16W
R9009	1-216-809-11	RES-CHIP	100	5%	1/16W
R9010	1-216-813-11	RES-CHIP	220	5%	1/16W
R9011	1-216-864-11	SHORT	0		
R9012	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R9013	1-216-805-11	RES-CHIP	47	5%	1/16W
R9014	1-216-805-11	RES-CHIP	47	5%	1/16W
R9015	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9016	1-249-414-11	CARBON	560	5%	1/4W
R9017	1-249-435-11	CARBON	33K	5%	1/4W
R9018	1-249-435-11	CARBON	33K	5%	1/4W
R9019	1-249-414-11	CARBON	560	5%	1/4W
R9020	1-216-799-11	RES-CHIP	15	5%	1/16W
R9021	1-216-799-11	RES-CHIP	15	5%	1/16W
R9022	1-249-421-11	CARBON	2.2K	5%	1/4W
R9023	1-249-421-11	CARBON	2.2K	5%	1/4W
R9024	1-249-405-11	CARBON	100	5%	1/4W
R9025	1-249-385-11	CARBON	2.2	5%	1/4W
R9027	1-249-385-11	CARBON	2.2	5%	1/4W
R9028	1-249-405-11	CARBON	100	5%	1/4W
R9029	1-215-913-11	METAL OXIDE	220	5%	3W
R9030	1-249-377-11	CARBON	0.47	5%	1/4W
R9031	1-249-385-11	CARBON	2.2	5%	1/4W
R9032	1-249-385-11	CARBON	2.2	5%	1/4W
R9033	1-249-436-11	CARBON	39K	5%	1/4W
R9034	1-249-436-11	CARBON	39K	5%	1/4W

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* A-1136-218-A B BOARD, COMPLETE
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< CAPACITOR >

C3001	1-128-453-21	ELECT CHIP	47UF	20%	6.3V
C3002	1-128-453-21	ELECT CHIP	47UF	20%	6.3V
C3003	1-128-453-21	ELECT CHIP	47UF	20%	6.3V
C3035	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C3044	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3089	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C3090	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3096	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C3101	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C3102	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C3301	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3302	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3303	1-126-206-11	ELECT CHIP	100UF	20%	6.3V
C3304	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3305	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3306	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3307	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3308	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3309	1-126-206-11	ELECT CHIP	100UF	20%	6.3V
C3310	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3311	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3312	1-126-206-11	ELECT CHIP	100UF	20%	6.3V
C3313	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3314	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3315	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3316	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3317	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3318	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3319	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3320	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3321	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3322	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3323	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3324	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3325	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3326	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3327	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3328	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3329	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C3331	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3332	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3333	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3334	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C3335	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3336	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3337	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C3338	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3339	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3340	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3341	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3343	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3344	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3345	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3346	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3347	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3348	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3349	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3350	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3351	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3352	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3353	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3354	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3355	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3356	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3357	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3358	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3359	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3360	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3361	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C3362	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C3363	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3364	1-164-156-11	CERAMIC CHIP	0.1UF		25V

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C3365	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3366	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3367	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3368	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3369	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3370	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3371	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3372	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3373	1-162-915-11	CERAMIC CHIP	10PF	0.50PF	50V
C3374	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3375	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C3376	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3377	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C3378	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3379	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3401	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3402	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3403	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3404	1-126-206-11	ELECT CHIP	100UF	20%	6.3V
C3405	1-126-206-11	ELECT CHIP	100UF	20%	6.3V
C3406	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C3407	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C3408	1-126-206-11	ELECT CHIP	100UF	20%	6.3V
C3409	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3410	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3411	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3412	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3413	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3414	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3415	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3416	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3417	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3418	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C3419	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3420	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3421	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3422	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3423	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C3424	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3425	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C3426	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3428	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C3429	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3430	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3431	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3432	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3433	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C3434	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3435	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3436	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C3437	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3438	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3439	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3440	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C3441	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C3442	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3443	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C3444	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3445	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3446	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C3447	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3448	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C3449	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3450	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3451	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3452	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3453	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3454	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3455	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3456	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3457	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3458	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3460	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C3462	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3463	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3464	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3465	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3466	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3467	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3468	1-126-206-11	ELECT CHIP	100UF	20%	6.3V
C3469	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3470	1-126-206-11	ELECT CHIP	100UF	20%	6.3V
C3473	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3474	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3475	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3476	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3477	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3478	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3479	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3480	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3481	1-117-681-11	ELECT CHIP	100UF	20%	16V
C3482	1-117-681-11	ELECT CHIP	100UF	20%	16V
C3483	1-117-681-11	ELECT CHIP	100UF	20%	16V
C3484	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C3485	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3486	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3487	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3488	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3489	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3490	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3491	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3492	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3493	1-126-204-11	ELECT CHIP	47UF	20%	16V
C3494	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3495	1-124-779-00	ELECT CHIP	10UF	20%	16V
C3496	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C3499	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V

< CONNECTOR >

CN3203*	1-793-923-11	CONNECTOR, DIN (PLUG) 64P

< DIODE >

D3089	8-719-800-76	1SS226
D3090	8-719-800-76	1SS226
D3301	8-719-083-58	UDZSTE-173.9B

REF. NO.	PART NO.	DESCRIPTION		REMARK
D3302	8-719-069-60	UDZSTE-179.1B		
D3401	8-719-914-43	DAN202K		
D3402	8-719-914-45	DAP202K		
D3403	8-719-069-33	DTZ-TT11-6.8B		
		< FERRITE BEAD >		
FB3302	1-500-451-11	FERRITE	0UH	
FB3401	1-414-235-22	FERRITE	0UH	
FB3402	1-414-235-22	FERRITE	0UH	
		< FILTER >		
FL3003	1-781-924-11	FILTER, LOW PASS (SMD)		
FL3301	1-234-558-21	FILTER, LOW PASS		
FL3302	1-234-557-21	FILTER, LOW PASS		
FL3303	1-234-557-21	FILTER, LOW PASS		
FL3401	1-781-923-11	FILTER, LOW PASS (SMD)		
		< IC >		
IC3089	6-700-149-01	IC M24C04-MN6T(A)		
IC3090	8-759-832-08	IC MB94918RPF-G-134-BND		
IC3091	8-759-349-11	PST9145NL		
IC3301	8-759-832-53	W981616AH-7-EL1		
IC3302	8-759-832-05	IC BA18BC0FP-E2		
IC3303	8-752-409-78	IC CXD2095AQ		
IC3304	8-759-447-90	TLC5733AIPM		
IC3305	8-759-669-75	TLC2932IPWR		
IC3306	8-759-669-78	TLC2933IPWR-12		
IC3401	6-700-394-01	IC BA25BC0FP-E2		
IC3402	8-759-677-39	MB81F643242B-D		
IC3403	8-759-460-29	PST9120NL		
IC3404	8-759-669-75	TLC2932IPWR		
IC3405	8-759-453-97	TC7SET08FU(TE85L		
IC3406	8-759-453-97	TC7SET08FU(TE85L		
IC3407	8-759-453-97	TC7SET08FU(TE85L		
IC3408	8-759-672-57	CXD9509AQ		
IC3409	8-759-833-72	IC NJM2870F25-TE2		
IC3410	8-752-367-59	CXD2309Q		
IC3411	8-759-082-57	TC7W04FU		
IC3412	8-759-082-58	TC7W08FU		
IC3413	8-759-595-97	SN74LV4053ANSR		
IC3414	8-759-548-56	M52055FP		
		< COIL >		
L3001	1-216-295-91	SHORT	0	
L3089	1-414-233-22	FERRITE	0UH	
L3102	1-412-946-11	INDUCTOR	3.9UH	
L3301	1-412-058-11	INDUCTOR	10UH	
L3302	1-469-555-21	INDUCTOR	10UH	
L3303	1-412-052-21	INDUCTOR	1UH	
L3304	1-469-555-21	INDUCTOR	10UH	
L3305	1-469-555-21	INDUCTOR	10UH	
L3306	1-469-561-21	INDUCTOR	100UH	
L3307	1-469-555-21	INDUCTOR	10UH	
L3308	1-469-561-21	INDUCTOR	100UH	
L3309	1-469-561-21	INDUCTOR	100UH	
L3310	1-469-561-21	INDUCTOR	100UH	
L3311	1-469-561-21	INDUCTOR	100UH	
L3312	1-469-555-21	INDUCTOR	10UH	
L3401	1-412-058-11	INDUCTOR	10UH	
L3402	1-412-052-21	INDUCTOR	1UH	
L3403	1-469-561-21	INDUCTOR	100UH	
L3404	1-469-561-21	INDUCTOR	100UH	
L3405	1-469-555-21	INDUCTOR	10UH	
L3406	1-469-555-21	INDUCTOR	10UH	
L3407	1-469-555-21	INDUCTOR	10UH	
L3408	1-469-555-21	INDUCTOR	10UH	
L3409	1-469-555-21	INDUCTOR	10UH	
L3410	1-412-058-11	INDUCTOR	10UH	
L3411	1-412-058-11	INDUCTOR	10UH	
L3412	1-469-555-21	INDUCTOR	10UH	
L3413	1-469-555-21	INDUCTOR	10UH	
L3414	1-469-555-21	INDUCTOR	10UH	
L3416	1-469-555-21	INDUCTOR	10UH	
		< TRANSISTOR >		
Q3005	8-729-422-27	2SD601A-Q		
Q3006	8-729-422-27	2SD601A-Q		
Q3007	8-729-422-27	2SD601A-Q		
Q3089	8-729-026-49	2SA1037AK-T146-R		
Q3090	8-729-026-49	2SA1037AK-T146-R		
Q3091	1-801-806-11	TR DTC144EKA		
Q3401	8-729-422-27	2SD601A-Q		
Q3301	8-729-422-27	2SD601A-Q		
Q3302	8-729-422-27	2SD601A-Q		
Q3303	8-729-422-27	2SD601A-Q		
Q3304	8-729-422-27	2SD601A-Q		
Q3305	8-729-026-49	2SA1037AK-T146-R		
Q3306	8-729-026-49	2SA1037AK-T146-R		
Q3307	8-729-422-27	2SD601A-Q		
Q3308	8-729-026-49	2SA1037AK-T146-R		
Q3309	8-729-422-27	2SD601A-Q		
Q3310	8-729-026-49	2SA1037AK-T146-R		
Q3311	8-729-422-27	2SD601A-Q		
Q3402	8-729-028-28	2SK2036(TE85L)		
Q3403	8-729-422-27	2SD601A-Q		
Q3404	8-729-028-28	2SK2036(TE85L)		
Q3405	8-729-026-49	2SA1037AK-T146-R		
Q3406	8-729-026-49	2SA1037AK-T146-R		
Q3407	8-729-422-27	2SD601A-Q		
Q3408	8-729-026-49	2SA1037AK-T146-R		
Q3409	8-729-422-27	2SD601A-Q		
Q3410	8-729-026-49	2SA1037AK-T146-R		
Q3411	8-729-026-49	2SA1037AK-T146-R		
Q3412	8-729-026-49	2SA1037AK-T146-R		
Q3413	8-729-026-49	2SA1037AK-T146-R		
Q3414	8-729-026-49	2SA1037AK-T146-R		
Q3415	8-729-026-49	2SA1037AK-T146-R		
		< RESISTOR >		
R3001	1-216-833-11	RES-CHIP	10K	5% 1/16W
R3002	1-216-864-11	SHORT	0	
R3021	1-216-809-11	RES-CHIP	100	5% 1/16W
R3022	1-216-809-11	RES-CHIP	100	5% 1/16W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R3023	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3035	1-216-809-11	RES-CHIP	100	5%	1/16W
R3036	1-216-809-11	RES-CHIP	100	5%	1/16W
R3037	1-216-809-11	RES-CHIP	100	5%	1/16W
R3038	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R3039	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R3040	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R3050	1-216-809-11	RES-CHIP	100	5%	1/16W
R3079	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3089	1-216-864-11	SHORT	0		
R3091	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3092	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3095	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3096	1-216-817-11	RES-CHIP	470	5%	1/16W
R3097	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3098	1-216-805-11	RES-CHIP	47	5%	1/16W
R3099	1-216-805-11	RES-CHIP	47	5%	1/16W
R3100	1-216-809-11	RES-CHIP	100	5%	1/16W
R3101	1-216-809-11	RES-CHIP	100	5%	1/16W
R3102	1-216-809-11	RES-CHIP	100	5%	1/16W
R3103	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R3104	1-216-809-11	RES-CHIP	100	5%	1/16W
R3105	1-216-809-11	RES-CHIP	100	5%	1/16W
R3106	1-216-818-11	RES-CHIP	560	5%	1/16W
R3107	1-216-864-11	SHORT	0		
R3108	1-216-817-11	RES-CHIP	470	5%	1/16W
R3109	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R3110	1-216-809-11	RES-CHIP	100	5%	1/16W
R3111	1-216-809-11	RES-CHIP	100	5%	1/16W
R3301	1-216-809-11	RES-CHIP	100	5%	1/16W
R3302	1-216-817-11	RES-CHIP	470	5%	1/16W
R3303	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R3304	1-216-809-11	RES-CHIP	100	5%	1/16W
R3305	1-216-809-11	RES-CHIP	100	5%	1/16W
R3306	1-216-809-11	RES-CHIP	100	5%	1/16W
R3307	1-216-864-11	SHORT	0		
R3308	1-216-864-11	SHORT	0		
R3309	1-218-662-11	METAL CHIP	56	0.5%	1/16W
R3310	1-218-662-11	METAL CHIP	56	0.5%	1/16W
R3311	1-218-662-11	METAL CHIP	56	0.5%	1/16W
R3312	1-218-662-11	METAL CHIP	56	0.5%	1/16W
R3313	1-216-835-11	RES-CHIP	15K	5%	1/16W
R3314	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R3315	1-216-835-11	RES-CHIP	15K	5%	1/16W
R3316	1-218-664-11	METAL CHIP	68	0.5%	1/16W
R3317	1-218-664-11	METAL CHIP	68	0.5%	1/16W
R3318	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R3319	1-218-662-11	METAL CHIP	56	0.5%	1/16W
R3320	1-218-662-11	METAL CHIP	56	0.5%	1/16W
R3321	1-218-662-11	METAL CHIP	56	0.5%	1/16W
R3322	1-218-662-11	METAL CHIP	56	0.5%	1/16W
R3323	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3324	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3325	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3326	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3327	1-216-835-11	RES-CHIP	15K	5%	1/16W
R3328	1-216-864-11	SHORT	0		

REF. NO.	PART NO.	DESCRIPTION			REMARK
R3329	1-216-815-11	RES-CHIP	330	5%	1/16W
R3330	1-216-815-11	RES-CHIP	330	5%	1/16W
R3331	1-216-841-11	RES-CHIP	47K	5%	1/16W
R3332	1-218-709-11	METAL CHIP	5.1K	0.5%	1/16W
R3333	1-216-864-11	SHORT	0		
R3334	1-216-809-11	RES-CHIP	100	5%	1/16W
R3335	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3337	1-216-820-11	RES-CHIP	820	5%	1/16W
R3338	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3339	1-216-855-11	RES-CHIP	680K	5%	1/16W
R3340	1-216-855-11	RES-CHIP	680K	5%	1/16W
R3341	1-216-813-11	RES-CHIP	220	5%	1/16W
R3342	1-218-705-11	METAL CHIP	3.6K	0.5%	1/16W
R3343	1-216-809-11	RES-CHIP	100	5%	1/16W
R3344	1-216-853-11	RES-CHIP	470K	5%	1/16W
R3345	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W
R3346	1-216-809-11	RES-CHIP	100	5%	1/16W
R3347	1-216-815-11	RES-CHIP	330	5%	1/16W
R3348	1-216-864-11	SHORT	0		
R3349	1-218-687-11	METAL CHIP	620	0.5%	1/16W
R3350	1-216-814-11	RES-CHIP	270	5%	1/16W
R3351	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3352	1-216-853-11	RES-CHIP	470K	5%	1/16W
R3353	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3354	1-216-813-11	RES-CHIP	220	5%	1/16W
R3355	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3356	1-216-819-11	RES-CHIP	680	5%	1/16W
R3357	1-218-676-11	METAL CHIP	220	0.5%	1/16W
R3358	1-218-676-11	METAL CHIP	220	0.5%	1/16W
R3359	1-218-676-11	METAL CHIP	220	0.5%	1/16W
R3360	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3361	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3364	1-216-864-11	SHORT	0		
R3365	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3366	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3367	1-216-803-11	RES-CHIP	33	5%	1/16W
R3369	1-216-864-11	SHORT	0		
R3371	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R3372	1-216-817-11	RES-CHIP	470	5%	1/16W
R3373	1-216-817-11	RES-CHIP	470	5%	1/16W
R3374	1-216-809-11	RES-CHIP	100	5%	1/16W
R3375	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R3376	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R3377	1-216-817-11	RES-CHIP	470	5%	1/16W
R3378	1-216-817-11	RES-CHIP	470	5%	1/16W
R3379	1-216-809-11	RES-CHIP	100	5%	1/16W
R3380	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R3381	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R3382	1-216-864-11	SHORT	0		
R3383	1-216-817-11	RES-CHIP	470	5%	1/16W
R3410	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3421	1-216-864-11	SHORT	0		
R3422	1-216-864-11	SHORT	0		
R3423	1-216-813-11	RES-CHIP	220	5%	1/16W
R3428	1-216-803-11	RES-CHIP	33	5%	1/16W
R3429	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R3432	1-216-815-11	RES-CHIP	330	5%	1/16W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R3434	1-216-809-11	RES-CHIP	100	5%	1/16W
R3445	1-216-864-11	SHORT	0		
R3446	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3447	1-216-819-11	RES-CHIP	680	5%	1/16W
R3448	1-216-855-11	RES-CHIP	680K	5%	1/16W
R3452	1-216-864-11	SHORT	0		
R3454	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3460	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3461	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3464	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3465	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3467	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3470	1-216-809-11	RES-CHIP	100	5%	1/16W
R3471	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3472	1-216-801-11	RES-CHIP	22	5%	1/16W
R3475	1-216-809-11	RES-CHIP	100	5%	1/16W
R3476	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3477	1-218-701-11	METAL CHIP	2.4K	0.5%	1/16W
R3478	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3483	1-218-701-11	METAL CHIP	2.4K	0.5%	1/16W
R3484	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3485	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3486	1-216-801-11	RES-CHIP	22	5%	1/16W
R3489	1-216-864-11	SHORT	0		
R3490	1-216-864-11	SHORT	0		
R3491	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3492	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3493	1-218-701-11	METAL CHIP	2.4K	0.5%	1/16W
R3495	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3496	1-216-801-11	RES-CHIP	22	5%	1/16W
R3497	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3498	1-216-818-11	RES-CHIP	560	5%	1/16W
R3499	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3501	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3502	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3503	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3504	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3505	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3506	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3507	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3508	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3509	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3510	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3511	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3512	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3800	1-216-864-11	SHORT	0		
R3802	1-218-678-11	METAL CHIP	270	0.5%	1/16W
R3803	1-218-678-11	METAL CHIP	270	0.5%	1/16W
R3804	1-218-678-11	METAL CHIP	270	0.5%	1/16W
R3805	1-218-678-11	METAL CHIP	270	0.5%	1/16W
R3806	1-218-662-11	METAL CHIP	56	0.5%	1/16W
R3807	1-218-670-11	METAL CHIP	120	0.5%	1/16W
R3808	1-218-670-11	METAL CHIP	120	0.5%	1/16W
R3809	1-218-670-11	METAL CHIP	120	0.5%	1/16W
R3810	1-218-670-11	METAL CHIP	120	0.5%	1/16W
R3811	1-216-809-11	RES-CHIP	100	5%	1/16W
R3812	1-216-809-11	RES-CHIP	100	5%	1/16W
R3813	1-216-809-11	RES-CHIP	100	5%	1/16W
R3814	1-218-644-11	METAL CHIP	10	0.5%	1/16W
R3815	1-218-648-11	METAL CHIP	15	0.5%	1/16W
R3816	1-218-652-11	METAL CHIP	22	0.5%	1/16W
R3817	1-218-652-11	METAL CHIP	22	0.5%	1/16W
R3820	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R3821	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R3822	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R3823	1-216-826-11	RES-CHIP	2.7K	5%	1/16W
R3824	1-216-826-11	RES-CHIP	2.7K	5%	1/16W
R3825	1-216-826-11	RES-CHIP	2.7K	5%	1/16W
R3826	1-216-809-11	RES-CHIP	100	5%	1/16W
R3828	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R3829	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R3830	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R3831	1-216-864-11	SHORT	0		
R3832	1-216-864-11	SHORT	0		
R3833	1-216-864-11	SHORT	0		
R3834	1-218-678-11	METAL CHIP	270	0.5%	1/16W
R3835	1-218-678-11	METAL CHIP	270	0.5%	1/16W
R3836	1-218-678-11	METAL CHIP	270	0.5%	1/16W
R3837	1-218-678-11	METAL CHIP	270	0.5%	1/16W
R3838	1-218-678-11	METAL CHIP	270	0.5%	1/16W
R3839	1-218-670-11	METAL CHIP	120	0.5%	1/16W
R3840	1-216-803-11	RES-CHIP	33	5%	1/16W
R3841	1-218-670-11	METAL CHIP	120	0.5%	1/16W
R3842	1-218-689-11	METAL CHIP	750	0.5%	1/16W
R3846	1-216-801-11	RES-CHIP	22	5%	1/16W
R3847	1-216-801-11	RES-CHIP	22	5%	1/16W
R3848	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3849	1-218-675-11	METAL CHIP	200	0.5%	1/16W
R3850	1-218-675-11	METAL CHIP	200	0.5%	1/16W
R3851	1-216-809-11	RES-CHIP	100	5%	1/16W
R3852	1-218-675-11	METAL CHIP	200	0.5%	1/16W
R3854	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3857	1-216-809-11	RES-CHIP	100	5%	1/16W
R3858	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W
R3862	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3863	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R3864	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3865	1-216-809-11	RES-CHIP	100	5%	1/16W
R3866	1-414-234-22	FERRITE	0UH		
R3867	1-414-234-22	FERRITE	0UH		
R3868	1-414-234-22	FERRITE	0UH		
R3869	1-218-719-11	METAL CHIP	13K	0.5%	1/16W
R3870	1-218-719-11	METAL CHIP	13K	0.5%	1/16W
R3871	1-218-719-11	METAL CHIP	13K	0.5%	1/16W
R3881	1-216-807-11	RES-CHIP	68	5%	1/16W
R3882	1-216-807-11	RES-CHIP	68	5%	1/16W
R3883	1-216-807-11	RES-CHIP	68	5%	1/16W
R3915	1-218-644-11	METAL CHIP	10	0.5%	1/16W
R3916	1-218-644-11	METAL CHIP	10	0.5%	1/16W
R3917	1-218-644-11	METAL CHIP	10	0.5%	1/16W
R3923	1-412-363-21	FERRITE	0UH		
R3933	1-216-864-11	SHORT	0		
R3937	1-216-809-11	RES-CHIP	100	5%	1/16W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R3953	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3954	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3955	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3956	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3957	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3958	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
		< NETWORK RESISTOR >			
RB3304	1-234-525-21	RES, CHIP NETWORK 56			
RB3305	1-234-525-21	RES, CHIP NETWORK 56			
RB3306	1-234-525-21	RES, CHIP NETWORK 56			
RB3307	1-234-525-21	RES, CHIP NETWORK 56			
RB3401	1-234-524-21	RES, CHIP NETWORK 33			
RB3402	1-234-524-21	RES, CHIP NETWORK 33			
RB3403	1-234-524-21	RES, CHIP NETWORK 33			
RB3404	1-234-524-21	RES, CHIP NETWORK 33			
RB3405	1-234-524-21	RES, CHIP NETWORK 33			
RB3406	1-234-524-21	RES, CHIP NETWORK 33			
RB3407	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB3408	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB3409	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB3410	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB3411	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB3412	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB3421	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB3422	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB3423	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB3424	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB3425	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB3426	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB3427	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
RB3428	1-239-409-11	RES, CHIP NETWORK 47 (3216)			
		< VIBRATOR >			
X3089	1-781-945-21	VIBRATOR, CERAMIC			
X3401	1-781-887-21	VIBRATOR, CRYSTAL			
X3402	1-781-579-21	OSCILLATOR, CRYSTAL			

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* A-1373-851-A U BOARD, COMPLETE

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< CAPACITOR >

REF. NO.	PART NO.	DESCRIPTION			REMARK
C2001	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C2002	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C2003	1-126-935-11	ELECT	470UF	20%	16V
C2004	1-128-551-11	ELECT	22UF	20%	25V
C2005	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C2006	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C2007	1-126-964-11	ELECT	10UF	20%	50V
C2008	1-126-964-11	ELECT	10UF	20%	50V
C2012	1-126-964-11	ELECT	10UF	20%	50V
C2013	1-126-964-11	ELECT	10UF	20%	50V
C2014	1-126-964-11	ELECT	10UF	20%	50V
C2015	1-126-964-11	ELECT	10UF	20%	50V
C2016	1-126-964-11	ELECT	10UF	20%	50V
C2017	1-126-964-11	ELECT	10UF	20%	50V
C2018	1-126-960-11	ELECT	1UF	20%	50V
C2019	1-126-964-11	ELECT	10UF	20%	50V
C2020	1-126-964-11	ELECT	10UF	20%	50V
C2021	1-126-960-11	ELECT	1UF	20%	50V
C2022	1-126-960-11	ELECT	1UF	20%	50V
C2023	1-126-964-11	ELECT	10UF	20%	50V
C2024	1-126-964-11	ELECT	10UF	20%	50V
C2025	1-126-960-11	ELECT	1UF	20%	50V
C2026	1-126-960-11	ELECT	1UF	20%	50V
C2027	1-128-551-11	ELECT	22UF	20%	25V
C2028	1-126-933-11	ELECT	100UF	20%	16V
C2029	1-126-964-11	ELECT	10UF	20%	50V
C2030	1-126-964-11	ELECT	10UF	20%	50V
C2031	1-126-964-11	ELECT	10UF	20%	50V
C2032	1-126-964-11	ELECT	10UF	20%	50V
C2033	1-126-960-11	ELECT	1UF	20%	50V
C2036	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C2037	1-165-176-11	CERAMIC CHIP	0.047UF	10%	16V
C2038	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C2040	1-126-933-11	ELECT	100UF	20%	16V
C2043	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C2044	1-126-933-11	ELECT	100UF	20%	16
C2045	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C2046	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C2048	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C2050	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C2052	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C2055	1-126-964-11	ELECT	10UF	20%	50V
C2056	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C2060	1-126-933-11	ELECT	100UF	20%	16V
C2061	1-126-964-11	ELECT	10UF	20%	50V
C2062	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C2069	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C2083	1-128-551-11	ELECT	22UF	20%	25V
C2084	1-126-964-11	ELECT	10UF	20%	50V
C2085	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C2087	1-164-160-11	CERAMIC CHIP	20PF	5%	50V
C2089	1-126-964-11	ELECT	10UF	20%	50V
C2090	1-164-227-11	CERAMIC CHIP	0.022UF	10%	25V
C2091	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C2092	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C2094	1-162-964-11	CERAMIC CHIP	0.001UF	10%	50V
C2096	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C2097	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C2098	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C2099	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C2102	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C2103	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C2111	1-126-964-11	ELECT	10UF	20%	50V
C2112	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C2113	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C2114	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C2122	1-126-964-11	ELECT	10UF	20%	50V
C2128	1-126-964-11	ELECT	10UF	20%	50V
C2342	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C2348	1-126-947-11	ELECT	47UF	20%	25V
C2349	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C2350	1-126-964-11	ELECT	10UF	20%	50V

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C2351	1-126-964-11	ELECT	10UF	20%	50V
C2352	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C2353	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C2354	1-137-368-11	MYLAR	0.0047UF	5%	50V
C2355	1-137-150-11	MYLAR	0.01UF	5%	50V
C2356	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C2357	1-126-933-11	ELECT	100UF	20%	16V
C2358	1-126-933-11	ELECT	100UF	20%	16V
C2359	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C2360	1-137-368-11	MYLAR	0.0047UF	5%	50V
C2365	1-136-169-00	FILM	0.22UF	5%	50V
C2366	1-137-150-11	MYLAR	0.01UF	5%	50V
C2367	1-137-368-11	MYLAR	0.0047UF	5%	50V
C2368	1-136-169-00	FILM	0.22UF	5%	50V
		< CONNECTOR >			
CN2001*	1-793-923-11	CONNECTOR, DIN (PLUG) 64P			
CN2002*	1-564-526-11	PLUG, CONNECTOR 11P			
		< DIODE >			
D2001	8-719-110-53	RD10ESB2			
D2002	8-719-110-53	RD10ESB2			
D2003	8-719-110-53	RD10ESB2			
D2004	8-719-800-76	1SS226			
D2005	8-719-800-76	1SS226			
D2006	8-719-800-76	1SS226			
D2007	8-719-110-53	RD10ESB2			
D2008	8-719-110-53	RD10ESB2			
D2009	8-719-800-76	1SS226			
D2010	8-719-800-76	1SS226			
D2011	8-719-800-76	1SS226			
D2012	8-719-110-53	RD10ESB2			
D2013	8-719-110-53	RD10ESB2			
D2014	8-719-110-53	RD10ESB2			
D2015	8-719-110-53	RD10ESB2			
D2016	8-719-110-53	RD10ESB2			
D2017	8-719-110-53	RD10ESB2			
D2018	8-719-110-53	RD10ESB2			
D2019	8-719-110-53	RD10ESB2			
D2020	8-719-110-53	RD10ESB2			
D2021	8-719-110-53	RD10ESB2			
D2022	8-719-110-53	RD10ESB2			
D2023	8-719-110-53	RD10ESB2			
D2024	8-719-110-53	RD10ESB2			
D2025	8-719-110-53	RD10ESB2			
D2026	8-719-110-53	RD10ESB2			
D2027	8-719-110-53	RD10ESB2			
D2029	8-719-110-53	RD10ESB2			
D2030	8-719-110-53	RD10ESB2			
D2031	8-719-800-76	1SS226			
D2032	8-719-800-76	1SS226			
D2033	8-719-991-33	1SS133T-77			
D2034	8-719-991-33	1SS133T-77			
D2035	8-719-110-53	RD10ESB2			
D2039	8-719-110-53	RD10ESB2			

REF. NO.	PART NO.	DESCRIPTION		REMARK
D2040	8-719-800-76	1SS226		
D2041	8-719-800-76	1SS226		
D2042	8-719-110-53	RD10ESB2		
D2043	8-719-800-76	1SS226		
D2044	8-719-800-76	1SS226		
		< FERRITE BEAD >		
FB2001	1-414-760-21	FERRITE	0UH	
FB2002	1-414-445-11	FERRITE	0UH	
		< FILTER >		
FL2001	1-239-848-11	FILTER, LOW PASS		
FL2002	1-239-848-11	FILTER, LOW PASS		
FL2003	1-239-848-11	FILTER, LOW PASS		
		< IC >		
IC2001	8-759-351-01	TEA6422DT		
IC2003	8-759-100-96	UPC4558G2		
IC2004	8-752-080-04	CXA2069Q		
IC2007	8-752-394-69	CXD2073Q-T4		
IC2302	8-759-578-49	NJM2370U10-TE2		
IC2304	8-759-711-10	NJU4066BM		
IC2305	8-759-686-15	NJM2180M		
		< JACK >		
J2001	1-573-967-12	BLOCK, (S) TERMINAL		
J2002	1-764-143-11	JACK		
J2003	1-764-143-11	JACK		
J2004	1-750-517-21	JACK BLOCK, PIN 3P		
J2005	1-815-015-11	JACK BLOCK, PIN		
J2006	1-815-015-11	JACK BLOCK, PIN		
J2007	1-750-516-21	JACK BLOCK, PIN 2P		
J2008	1-750-517-21	JACK BLOCK, PIN 3P		
		< COIL >		
L2302	1-469-555-21	INDUCTOR	10UH	
		< TRANSISTOR >		
Q2001	8-729-422-27	2SD601A-Q		
Q2002	8-729-026-49	2SA1037AK-T146-R		
Q2003	8-729-026-49	2SA1037AK-T146-R		
Q2004	8-729-422-27	2SD601A-Q		
Q2005	8-729-422-27	2SD601A-Q		
Q2006	8-729-422-27	2SD601A-Q		
Q2007	8-729-422-27	2SD601A-Q		
Q2008	8-729-422-27	2SD601A-Q		
Q2009	8-729-422-27	2SD601A-Q		
Q2012	8-729-026-49	2SA1037AK-T146-R		
Q2013	8-729-422-27	2SD601A-Q		
Q2015	8-729-422-27	2SD601A-Q		
Q2016	8-729-422-27	2SD601A-Q		
Q2017	8-729-422-27	2SD601A-Q		
Q2019	8-729-026-49	2SA1037AK-T146-R		
Q2020	8-729-422-27	2SD601A-Q		
Q2021	8-729-026-49	2SA1037AK-T146-R		
Q2022	8-729-422-27	2SD601A-Q		
Q2024	8-729-422-27	2SD601A-Q		
Q2025	8-729-422-27	2SD601A-Q		

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REF. NO.	PART NO.	DESCRIPTION			REMARK
Q2026	8-729-026-49	2SA1037AK-T146-R			
Q2027	8-729-026-49	2SA1037AK-T146-R			
Q2028	8-729-026-49	2SA1037AK-T146-R			
Q2029	8-729-120-28	2SC1623-L5L6			
Q2301	8-729-422-27	2SD601A-Q			
		< RESISTOR >			
R2001	1-218-285-11	RES-CHIP	75	5%	1/16W
R2002	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2003	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R2004	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R2005	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R2006	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2007	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2008	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R2009	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R2010	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R2011	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2012	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2013	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2014	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2015	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2016	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2017	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R2018	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2019	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2020	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R2021	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R2022	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R2023	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2024	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2025	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R2026	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R2027	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R2028	1-216-809-11	RES-CHIP	100	5%	1/16W
R2029	1-216-809-11	RES-CHIP	100	5%	1/16W
R2030	1-216-809-11	RES-CHIP	100	5%	1/16W
R2031	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2032	1-216-845-11	RES-CHIP	100K	5%	1/16W
R2034	1-216-803-11	RES-CHIP	33	5%	1/16W
R2035	1-216-809-11	RES-CHIP	100	5%	1/16W
R2036	1-216-809-11	RES-CHIP	100	5%	1/16W
R2037	1-216-809-11	RES-CHIP	100	5%	1/16W
R2038	1-216-809-11	RES-CHIP	100	5%	1/16W
R2039	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2040	1-216-857-11	RES-CHIP	1M	5%	1/16W
R2041	1-216-842-11	RES-CHIP	56K	5%	1/16W
R2042	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2043	1-216-809-11	RES-CHIP	100	5%	1/16W
R2044	1-216-806-11	RES-CHIP	56	5%	1/16W
R2045	1-216-806-11	RES-CHIP	56	5%	1/16W
R2046	1-216-818-11	RES-CHIP	560	5%	1/16W
R2047	1-216-809-11	RES-CHIP	100	5%	1/16W
R2048	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R2049	1-216-809-11	RES-CHIP	100	5%	1/16W
R2050	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R2051	1-216-809-11	RES-CHIP	100	5%	1/16W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R2052	1-216-817-11	RES-CHIP	470	5%	1/16W
R2053	1-216-817-11	RES-CHIP	470	5%	1/16W
R2054	1-216-806-11	RES-CHIP	56	5%	1/16W
R2055	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2056	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2057	1-216-806-11	RES-CHIP	56	5%	1/16W
R2058	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R2059	1-216-817-11	RES-CHIP	470	5%	1/16W
R2060	1-216-817-11	RES-CHIP	470	5%	1/16W
R2061	1-216-817-11	RES-CHIP	470	5%	1/16W
R2062	1-216-817-11	RES-CHIP	470	5%	1/16W
R2063	1-216-809-11	RES-CHIP	100	5%	1/16W
R2064	1-216-809-11	RES-CHIP	100	5%	1/16W
R2065	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2066	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R2067	1-216-809-11	RES-CHIP	100	5%	1/16W
R2068	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2069	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2070	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2071	1-216-809-11	RES-CHIP	100	5%	1/16W
R2072	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R2073	1-216-809-11	RES-CHIP	100	5%	1/16W
R2074	1-216-809-11	RES-CHIP	100	5%	1/16W
R2075	1-216-809-11	RES-CHIP	100	5%	1/16W
R2077	1-216-809-11	RES-CHIP	100	5%	1/16W
R2080	1-216-809-11	RES-CHIP	100	5%	1/16W
R2081	1-216-809-11	RES-CHIP	100	5%	1/16W
R2082	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R2084	1-216-809-11	RES-CHIP	100	5%	1/16W
R2085	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2086	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R2087	1-216-809-11	RES-CHIP	100	5%	1/16W
R2089	1-216-809-11	RES-CHIP	100	5%	1/16W
R2090	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2091	1-216-806-11	RES-CHIP	56	5%	1/16W
R2092	1-216-806-11	RES-CHIP	56	5%	1/16W
R2094	1-216-864-11	SHORT	0		
R2096	1-216-809-11	RES-CHIP	100	5%	1/16W
R2097	1-216-809-11	RES-CHIP	100	5%	1/16W
R2098	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2099	1-216-809-11	RES-CHIP	100	5%	1/16W
R2100	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2103	1-216-809-11	RES-CHIP	100	5%	1/16W
R2104	1-216-809-11	RES-CHIP	100	5%	1/16W
R2105	1-216-809-11	RES-CHIP	100	5%	1/16W
R2107	1-216-807-11	RES-CHIP	68	5%	1/16W
R2109	1-216-809-11	RES-CHIP	100	5%	1/16W
R2110	1-216-809-11	RES-CHIP	100	5%	1/16W
R2111	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2113	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2116	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R2118	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2121	1-216-809-11	RES-CHIP	100	5%	1/16W
R2122	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2123	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R2124	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2125	1-218-702-11	METAL CHIP	2.7K	0.5%	1/16W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R2128	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2130	1-216-809-11	RES-CHIP	100	5%	1/16W
R2131	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2132	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2133	1-218-674-11	METAL CHIP	180	0.5%	1/16W
R2136	1-216-816-11	RES-CHIP	390	5%	1/16W
R2137	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R2138	1-216-809-11	RES-CHIP	100	5%	1/16W
R2142	1-216-815-11	RES-CHIP	330	5%	1/16W
R2147	1-216-814-11	RES-CHIP	270	5%	1/16W
R2148	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R2149	1-216-817-11	RES-CHIP	470	5%	1/16W
R2150	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2151	1-218-698-11	METAL CHIP	1.8K	0.5%	1/16W
R2152	1-218-694-11	METAL CHIP	1.2K	0.5%	1/16W
R2153	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2155	1-216-837-11	RES-CHIP	22K	5%	1/16W
R2156	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2157	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2159	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R2164	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R2166	1-216-818-11	RES-CHIP	560	5%	1/16W
R2169	1-216-842-11	RES-CHIP	56K	5%	1/16W
R2173	1-216-818-11	RES-CHIP	560	5%	1/16W
R2174	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R2175	1-216-817-11	RES-CHIP	470	5%	1/16W
R2176	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2177	1-216-809-11	RES-CHIP	100	5%	1/16W
R2178	1-218-676-11	METAL CHIP	220	0.5%	1/16W
R2182	1-216-864-11	SHORT	0		
R2183	1-216-813-11	RES-CHIP	220	5%	1/16W
R2184	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W
R2185	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R2186	1-218-688-11	METAL CHIP	680	0.5%	1/16W
R2187	1-216-864-11	SHORT	0		
R2193	1-216-809-11	RES-CHIP	100	5%	1/16W
R2194	1-216-817-11	RES-CHIP	470	5%	1/16W
R2195	1-216-817-11	RES-CHIP	470	5%	1/16W
R2196	1-216-817-11	RES-CHIP	470	5%	1/16W
R2197	1-216-817-11	RES-CHIP	470	5%	1/16W
R2198	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2199	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2324	1-216-864-11	SHORT	0		
R2325	1-216-864-11	SHORT	0		
R2330	1-216-864-11	SHORT	0		
R2331	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2341	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R2342	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R2343	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R2344	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R2345	1-216-864-11	SHORT	0		
R2346	1-216-864-11	SHORT	0		
R2347	1-216-843-11	RES-CHIP	68K	5%	1/16W
R2348	1-216-838-11	RES-CHIP	27K	5%	1/16W
R2349	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2350	1-216-797-11	RES-CHIP	10	5%	1/16W
R2353	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R2354	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2355	1-218-890-11	RES-CHIP	62K	5%	1/16W
R2356	1-216-842-11	RES-CHIP	56K	5%	1/16W
R2357	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2358	1-216-839-11	RES-CHIP	33K	5%	1/16W
R2359	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R2360	1-216-861-11	RES-CHIP	2.2M	5%	1/16W
R2363	1-216-864-11	SHORT	0		
R2365	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2366	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R2369	1-216-864-11	SHORT	0		
R2376	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2377	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R2379	1-216-842-11	RES-CHIP	56K	5%	1/16W
R2380	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2381	1-216-831-11	RES-CHIP	6.8K	5%	1/16W
R2382	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R2383	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R2384	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2385	1-216-835-11	RES-CHIP	15K	5%	1/16W
R2386	1-216-837-11	RES-CHIP	22K	5%	1/16W
R2387	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2390	1-216-847-11	RES-CHIP	150K	5%	1/16W

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* A-1299-523-A AD BOARD, COMPLETE
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< CAPACITOR >

C1601	1-126-933-11	ELECT	100UF	20%	16V
C1604	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1605	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1606	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1607	1-126-933-11	ELECT	100UF	20%	16V
C1608	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1609	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V
C1610	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C1611	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1612	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1613	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1614	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1615	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1616	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1617	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1618	1-126-933-11	ELECT	100UF	20%	16V
C1619	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1620	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C1621	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1622	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C1623	1-162-915-11	CERAMIC CHIP	10PF	0.50PF	50V
C1624	1-162-915-11	CERAMIC CHIP	10PF	0.50PF	50V
C1625	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1626	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1627	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1628	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1629	1-164-156-11	CERAMIC CHIP	0.1UF		25V

AD

REF. NO.	PART NO.	DESCRIPTION			REMARK
C1630	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1631	1-126-933-11	ELECT	100UF	20%	16V
C1632	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1633	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1634	1-126-963-11	ELECT	4.7UF	20%	50V
C1635	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C1636	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C1637	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C1638	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C1639	1-126-933-11	ELECT	100UF	20%	16V
C1640	1-126-933-11	ELECT	100UF	20%	16V
C1641	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1643	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1644	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1645	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
C1646	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
C1647	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V
C1649	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V
C1651	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1652	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1656	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1657	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1658	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1659	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1661	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1663	1-126-933-11	ELECT	100UF	20%	16V
C1664	1-126-933-11	ELECT	100UF	20%	16V
C1665	1-126-933-11	ELECT	100UF	20%	16V
C1666	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1668	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1669	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C1670	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1671	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1672	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1673	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C1674	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
C1675	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
C1676	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V
C1677	1-126-933-11	ELECT	100UF	20%	16V
C1678	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V
C1680	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1681	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1682	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1683	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1684	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1685	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1688	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1690	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1691	1-126-933-11	ELECT	100UF	20%	16V
C1692	1-126-933-11	ELECT	100UF	20%	16V
C1693	1-126-933-11	ELECT	100UF	20%	16V
C1694	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1695	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C1696	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C1697	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1698	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1699	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1700	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1701	1-162-968-11	CERAMIC CHIP	0.0047UF	10%	50V
C1704	1-126-933-11	ELECT	100UF	20%	16V
C1707	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
C1708	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V
C1709	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
C1711	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V
C1712	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1714	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1715	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1717	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1718	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1720	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C1721	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C1722	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C1730	1-126-916-11	ELECT	1000UF	20%	6.3V
C1731	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C1732	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C1733	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C1734	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
		< CONNECTOR >			
CN1601	1-573-301-21	CONNECTOR, BOARD TO BOARD 20P			
CN1602	1-573-301-21	CONNECTOR, BOARD TO BOARD 20P			
		< DIODE >			
D1601	8-719-404-50	MA111-TX			
D1603	8-719-404-50	MA111-TX			
D1604	8-719-069-54	UDZSTE-175.1B			
D1605	8-719-069-54	UDZSTE-175.1B			
D1606	8-719-069-54	UDZSTE-175.1B			
D1607	8-719-069-54	UDZSTE-175.1B			
		< FERRITE BEAD >			
FB1601	1-414-445-11	FERRITE	0UH		
FB1602	1-414-445-11	FERRITE	0UH		
FB1603	1-414-445-11	FERRITE	0UH		
FB1604	1-414-445-11	FERRITE	0UH		
FB1605	1-414-445-11	FERRITE	0UH		
FB1606	1-414-445-11	FERRITE	0UH		
FB1607	1-414-445-11	FERRITE	0UH		
FB1608	1-414-445-11	FERRITE	0UH		
FB1609	1-414-445-11	FERRITE	0UH		
FB1610	1-414-445-11	FERRITE	0UH		
FB1611	1-414-445-11	FERRITE	0UH		
FB1612	1-414-445-11	FERRITE	0UH		
FB1613	1-414-445-11	FERRITE	0UH		
FB1614	1-414-445-11	FERRITE	0UH		
FB1615	1-414-445-11	FERRITE	0UH		
FB1616	1-414-445-11	FERRITE	0UH		
FB1617	1-414-445-11	FERRITE	0UH		
		< IC >			
IC1601	8-759-683-55	IC CM0017AF			

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REF. NO.	PART NO.	DESCRIPTION			REMARK
IC1602	8-759-830-08	IC NJM2068V-TE2			
IC1603	8-759-830-08	IC NJM2068V-TE2			
IC1605	8-759-352-91	PST9143NL			
IC1606	8-752-925-71	IC CXP86448-635Q			
IC1607	8-759-682-41	M24C32-WMN6T(A)			
IC1608	8-759-829-87	IC CD0031AM			
IC1609	8-759-830-08	IC NJM2068V-TE2			
IC1610	8-759-830-08	IC NJM2068V-TE2			
IC1611	8-759-830-08	IC NJM2068V-TE2			
IC1612	8-759-830-08	IC NJM2068V-TE2			
		< COIL >			
L1601	1-469-555-21	INDUCTOR	10UH		
L1602	1-469-555-21	INDUCTOR	10UH		
		< TRANSISTOR >			
Q1603	8-729-422-27	2SD601A-Q			
Q1604	8-729-422-27	2SD601A-Q			
Q1605	8-729-422-27	2SD601A-Q			
Q1606	8-729-422-27	2SD601A-Q			
		< RESISTOR >			
R1601	1-216-841-11	RES-CHIP	47K	5%	1/16W
R1604	1-216-833-11	RES-CHIP	10K	5%	1/16W
R1605	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1606	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1607	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1608	1-216-809-11	RES-CHIP	100	5%	1/16W
R1609	1-216-809-11	RES-CHIP	100	5%	1/16W
R1611	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R1614	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R1615	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1618	1-216-809-11	RES-CHIP	100	5%	1/16W
R1619	1-216-864-11	SHORT	0		
R1620	1-216-809-11	RES-CHIP	100	5%	1/16W
R1621	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1622	1-216-817-11	RES-CHIP	470	5%	1/16W
R1623	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1625	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1627	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1634	1-216-809-11	RES-CHIP	100	5%	1/16W
R1635	1-216-809-11	RES-CHIP	100	5%	1/16W
R1636	1-216-833-11	RES-CHIP	10K	5%	1/16W
R1637	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1638	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1639	1-216-809-11	RES-CHIP	100	5%	1/16W
R1640	1-216-837-11	RES-CHIP	22K	5%	1/16W
R1641	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R1642	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1643	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1644	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R1645	1-216-815-11	RES-CHIP	330	5%	1/16W
R1646	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R1647	1-216-833-11	RES-CHIP	10K	5%	1/16W
R1648	1-216-809-11	RES-CHIP	100	5%	1/16W
R1649	1-216-809-11	RES-CHIP	100	5%	1/16W
R1650	1-216-815-11	RES-CHIP	330	5%	1/16W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1651	1-216-815-11	RES-CHIP	330	5%	1/16W
R1652	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1653	1-216-817-11	RES-CHIP	470	5%	1/16W
R1654	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R1655	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R1656	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1657	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1658	1-216-837-11	RES-CHIP	22K	5%	1/16W
R1659	1-216-837-11	RES-CHIP	22K	5%	1/16W
R1660	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1661	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1662	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R1663	1-216-818-11	RES-CHIP	560	5%	1/16W
R1665	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1666	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1667	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1668	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1669	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1670	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1671	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1672	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1673	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1674	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1675	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1676	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1681	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1682	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1683	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1684	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1685	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1690	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1691	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1692	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1693	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1694	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1695	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1696	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1697	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1698	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1699	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1700	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1701	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1702	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1703	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1704	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1705	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1706	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1707	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1708	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1709	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1710	1-216-864-11	SHORT	0		
R1711	1-216-833-11	RES-CHIP	10K	5%	1/16W
R1712	1-216-833-11	RES-CHIP	10K	5%	1/16W
R1713	1-216-833-11	RES-CHIP	10K	5%	1/16W
R1714	1-216-833-11	RES-CHIP	10K	5%	1/16W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
		< NETWORK RESISTOR >			
RB1603	1-233-576-11	RES, CHIP NETWORK 100			
RB1604	1-233-576-11	RES, CHIP NETWORK 100			
RB1605	1-233-576-11	RES, CHIP NETWORK 100			
		< VIBRATOR >			
X1601	1-767-925-21	VIBRATOR, CRYSTAL			
**********					
*	A-1299-428-A	A BOARD, COMPLETE			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		< CAPACITOR >			
C1	1-126-933-11	ELECT	100UF	20%	16V
C2	1-104-665-11	ELECT	100UF	20%	25V
C3	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C4	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C5	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C6	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C7	1-126-933-11	ELECT	100UF	20%	16V
C8	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
C10	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C11	1-126-933-11	ELECT	100UF	20%	16V
C12	1-126-933-11	ELECT	100UF	20%	16V
C13	1-164-392-11	CERAMIC CHIP	390PF	5%	50V
C14	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C15	1-164-392-11	CERAMIC CHIP	390PF	5%	50V
C16	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C17	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C18	1-162-975-11	CERAMIC CHIP	24PF	5%	50V
C19	1-162-975-11	CERAMIC CHIP	24PF	5%	50V
C20	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C21	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C22	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C23	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C24	1-126-947-11	ELECT	47UF	20%	16V
C26	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C27	1-126-947-11	ELECT	47UF	20%	16V
C28	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C29	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C30	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C31	1-126-947-11	ELECT	47UF	20%	16V
C33	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C34	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C35	1-126-947-11	ELECT	47UF	20%	16V
C36	1-126-934-11	ELECT	220UF	20%	10V
C37	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C38	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C39	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C40	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C41	1-126-934-11	ELECT	220UF	20%	10V
C42	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C43	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C44	1-126-947-11	ELECT	47UF	20%	16V
C45	1-162-968-11	CERAMIC CHIP	0.0047UF	10%	50V
C46	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C47	1-162-968-11	CERAMIC CHIP	0.0047UF	10%	50V
C49	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C50	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C51	1-126-947-11	ELECT	47UF	20%	16V
C52	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C53	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C54	1-162-968-11	CERAMIC CHIP	0.0047UF	10%	50V
C55	1-162-968-11	CERAMIC CHIP	0.0047UF	10%	50V
C56	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C57	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C59	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C60	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C61	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C62	1-126-947-11	ELECT	47UF	20%	16V
C63	1-126-935-11	ELECT	470UF	20%	6.3V
C65	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C66	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C67	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C68	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C69	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C70	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C73	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C74	1-126-964-11	ELECT	10UF	20%	50V
C75	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C76	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V
C77	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C78	1-104-665-11	ELECT	100UF	20%	25V
C79	1-126-933-11	ELECT	100UF	20%	16V
C80	1-126-967-11	ELECT	47UF	20%	50V
C81	1-104-665-11	ELECT	100UF	20%	10V
C82	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C83	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C84	1-126-933-11	ELECT	100UF	20%	16V
C85	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C86	1-162-970-11	CERAMIC CHIP	0.01UF	10%	16V
C87	1-126-960-11	ELECT	1UF	20%	50V
C88	1-126-933-11	ELECT	100UF	20%	16V
C90	1-126-964-11	ELECT	10UF	20%	50V
C92	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C93	1-126-964-11	ELECT	10UF	20%	50V
C94	1-164-346-11	CERAMIC CHIP	1UF		16V
C95	1-162-970-11	CERAMIC CHIP	0.01UF	10%	16V
C96	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C97	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C98	1-126-960-11	ELECT	1UF	20%	50V
C99	1-165-176-11	CERAMIC CHIP	0.047UF	10%	16V
C101	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C102	1-126-964-11	ELECT	10UF	20%	50V
C103	1-126-964-11	ELECT	10UF	20%	50V
C104	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C105	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C106	1-126-933-11	ELECT	100UF	20%	16V
C108	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C109	1-162-917-11	CERAMIC CHIP	15PF	5%	50V

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C110	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C111	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C112	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C113	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C115	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C116	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C119	1-126-933-11	ELECT	100UF	20%	16V
C120	1-126-933-11	ELECT	100UF	20%	16V
C123	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V
C124	1-164-346-11	CERAMIC CHIP	1UF		16V
C125	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C128	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C129	1-165-176-11	CERAMIC CHIP	0.047UF	10%	16V
C130	1-162-970-11	CERAMIC CHIP	0.01UF	10%	16V
C131	1-126-961-11	ELECT	2.2UF	20%	50V
C132	1-126-935-11	ELECT	470UF	20%	16V
C133	1-126-964-11	ELECT	10UF	20%	50V
C134	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C135	1-126-964-11	ELECT	10UF	20%	50V
C136	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C137	1-126-964-11	ELECT	10UF	20%	50V
C138	1-126-964-11	ELECT	10UF	20%	50V
C139	1-126-964-11	ELECT	10UF	20%	50V
C140	1-126-933-11	ELECT	100UF	20%	16V
C141	1-126-933-11	ELECT	100UF	20%	16V
C142	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C143	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C144	1-126-964-11	ELECT	10UF	20%	50V
C145	1-162-970-11	CERAMIC CHIP	0.01UF	10%	16V
C301	1-162-970-11	CERAMIC CHIP	0.01UF	10%	16V
C302	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C303	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C304	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C305	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C306	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C307	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C308	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C309	1-126-933-11	ELECT	100UF	20%	16V
C310	1-126-964-11	ELECT	10UF	20%	50V
C311	1-126-933-11	ELECT	100UF	20%	16V
C312	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C313	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C314	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C315	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C316	1-162-964-11	CERAMIC CHIP	0.001UF	10%	50V
C317	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C318	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C319	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C320	1-126-963-11	ELECT	4.7UF	20%	50V
C321	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C322	1-126-933-11	ELECT	100UF	20%	16V
C323	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C324	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C325	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C326	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C327	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C328	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C329	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C330	1-162-970-11	CERAMIC CHIP	0.01UF	10%	16V
C331	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C332	1-126-964-11	ELECT	10UF	20%	50V
C333	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C334	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C335	1-126-933-11	ELECT	100UF	20%	16V
C336	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C337	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C338	1-126-963-11	ELECT	4.7UF	20%	50V
C339	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C340	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C341	1-162-968-11	CERAMIC CHIP	0.0047UF	10%	50V
C342	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C343	1-126-963-11	ELECT	4.7UF	20%	50V
C344	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C345	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C346	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C347	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C348	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C349	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C350	1-126-935-11	ELECT	470UF	20%	16V
C351	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C352	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C353	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C354	1-126-963-11	ELECT	4.7UF	20%	50V
C355	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C356	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C357	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C358	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C359	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C360	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C361	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C362	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C363	1-126-933-11	ELECT	100UF	20%	16V
C364	1-126-933-11	ELECT	100UF	20%	16V
C365	1-126-933-11	ELECT	100UF	20%	16V
C366	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C367	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C368	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C369	1-126-933-11	ELECT	100UF	20%	16V
C370	1-126-933-11	ELECT	100UF	20%	16V
C371	1-126-933-11	ELECT	100UF	20%	16V
C372	1-126-933-11	ELECT	100UF	20%	16V
C373	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C374	1-126-933-11	ELECT	100UF	20%	16V
C375	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C376	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C377	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C378	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C379	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C380	1-162-964-11	CERAMIC CHIP	0.001UF	10%	50V
C381	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C382	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C383	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C384	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C385	1-162-968-11	CERAMIC CHIP	0.0047UF	10%	50V

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C386	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C387	1-126-964-11	ELECT	10UF	20%	50V
C388	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C389	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C390	1-126-964-11	ELECT	10UF	20%	50V
C391	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C392	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C393	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C394	1-126-933-11	ELECT	100UF	20%	16V
C395	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C396	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C397	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C398	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C399	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C400	1-126-933-11	ELECT	100UF	20%	16V
C401	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C402	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C403	1-126-947-11	ELECT	47UF	20%	16V
C404	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C405	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C406	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C407	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C408	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C410	1-126-933-11	ELECT	100UF	20%	16V
C411	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C412	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C413	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C414	1-162-970-11	CERAMIC CHIP	0.01UF	10%	16V
C415	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C416	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C417	1-126-933-11	ELECT	100UF	20%	16V
C418	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C419	1-126-933-11	ELECT	100UF	20%	16V
C420	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C421	1-162-964-11	CERAMIC CHIP	0.001UF	10%	50V
C422	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C426	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C430	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C431	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C435	1-126-933-11	ELECT	100UF	20%	16V
C438	1-126-933-11	ELECT	100UF	20%	16V
C439	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C440	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C442	1-135-834-91	CERAMIC CHIP	2.2E+06PF	6.3V	
C443	1-126-933-11	ELECT	100UF	20%	16V
C444	1-110-563-11	CERAMIC CHIP	0.068UF	10%	16V
C449	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C455	1-130-495-00	MYLAR	0.1UF	5%	50V
C457	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C458	1-136-244-11	FILM	0.1UF	5%	50V
C460	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C461	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C463	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C464	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C466	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C467	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C468	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C470	1-162-970-11	CERAMIC CHIP	0.01UF	10%	16V
C472	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C476	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C477	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C478	1-216-864-11	SHORT	0		
C479	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C480	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C481	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C482	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C483	1-162-968-11	CERAMIC CHIP	0.0047UF	10%	50V
C484	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C485	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C486	1-115-467-11	CERAMIC CHIP	0.22UF	10%	10V
C488	1-126-933-11	ELECT	100UF	20%	16V
C489	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C490	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C494	1-126-933-11	ELECT	100UF	20%	16V
C495	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C497	1-126-933-11	ELECT	100UF	20%	16V
C498	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C500	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C501	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C502	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C503	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C504	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
C505	1-162-964-11	CERAMIC CHIP	0.001UF	10%	50V
C506	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C507	1-162-966-11	CERAMIC CHIP	0.0022UF	10%	50V
C701	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C702	1-126-964-11	ELECT	10UF	20%	50V
C703	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C704	1-126-947-11	ELECT	47UF	20%	25V
C705	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C706	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C707	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C708	1-104-665-11	ELECT	100UF	20%	10V
C709	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C710	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C713	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C714	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C719	1-162-964-11	CERAMIC CHIP	0.001UF	10%	50V
C722	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C728	1-126-933-11	ELECT	100UF	20%	16V
C730	1-162-915-11	CERAMIC CHIP	10PF	0.50PF	50V
C731	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C732	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C733	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
C735	1-126-933-11	ELECT	100UF	20%	16V
C736	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C737	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C738	1-126-933-11	ELECT	100UF	20%	16V
C739	1-126-959-11	ELECT	0.47UF	20%	50V
C740	1-126-963-11	ELECT	4.7UF	20%	50V
C741	1-126-963-11	ELECT	4.7UF	20%	50V
C742	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C745	1-164-156-11	CERAMIC CHIP	0.1UF		25V

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C746	1-126-947-11	ELECT	47UF	20%	25V
C747	1-126-947-11	ELECT	47UF	20%	25V
C749	1-126-947-11	ELECT	47UF	20%	25V
C750	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C751	1-126-943-11	ELECT	2200UF	20%	25V
C752	1-126-943-11	ELECT	2200UF	20%	25V
C754	1-162-970-11	CERAMIC CHIP	0.01UF	10%	16V
C755	1-126-947-11	ELECT	47UF	20%	25V
C756	1-126-964-11	ELECT	10UF	20%	50V
C757	1-130-495-00	MYLAR	0.1UF	5%	50V
C758	1-126-947-11	ELECT	47UF	20%	25V
C759	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C760	1-126-933-11	ELECT	100UF	20%	16V
C761	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C762	1-104-665-11	ELECT	100UF	20%	25V
C764	1-130-495-00	MYLAR	0.1UF	5%	50V
C765	1-126-933-11	ELECT	100UF	20%	16V
C766	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C768	1-164-218-11	CERAMIC CHIP	180PF	5%	50V
C769	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C770	1-162-928-11	CERAMIC CHIP	120PF	5%	50V
C771	1-130-495-00	MYLAR	0.1UF	5%	50V
C772	1-130-495-00	MYLAR	0.1UF	5%	50V
C773	1-164-677-11	CERAMIC CHIP	0.033UF	10%	16V
C775	1-162-967-11	CERAMIC CHIP	0.0033UF	10%	16V
C777	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C778	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C779	1-126-933-11	ELECT	100UF	20%	16V
C780	1-104-665-11	ELECT	100UF	20%	25V
C781	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C782	1-130-489-00	MYLAR	0.033UF	5%	50V
C783	1-137-364-11	MYLAR	0.001UF	5%	50V
C784	1-125-891-11	CERAMIC CHIP	0.47UF	10%	10V
C785	1-126-963-11	ELECT	4.7UF	20%	50V
C786	1-126-963-11	ELECT	4.7UF	20%	50V
C787	1-126-960-11	ELECT	1UF	20%	50V
C788	1-165-176-11	CERAMIC CHIP	0.047UF	10%	16V
C789	1-126-964-11	ELECT	10UF	20%	50V
C790	1-164-677-11	CERAMIC CHIP	0.033UF	10%	16V
C791	1-162-967-11	CERAMIC CHIP	0.0033UF	10%	16V
C792	1-130-489-00	MYLAR	0.033UF	5%	50V
C793	1-137-364-11	MYLAR	0.001UF	5%	50V
C795	1-126-963-11	ELECT	4.7UF	20%	50V
C796	1-126-933-11	ELECT	100UF	20%	16V
C797	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C799	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C800	1-162-970-11	CERAMIC CHIP	0.01UF	10%	16V
C801	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C802	1-126-935-11	ELECT	470UF	20%	16V

< CONNECTOR >

CN1	*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN2	*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN3	*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN4	*	1-564-510-11	PLUG, CONNECTOR 7P	
CN5		1-573-979-21	CONNECTOR, BOARD TO BOARD 11P	
CN6	*	1-793-922-11	CONNECTOR, DIN (RECEPTACLE)64P	
CN7	*	1-564-508-11	PLUG, CONNECTOR 5P	
CN8		1-695-915-11	TAB (CONTACT)	
CN9	*	1-564-509-11	PLUG, CONNECTOR 6P	
CN10	*	1-564-511-11	PLUG, CONNECTOR 8P	
CN11		1-573-298-21	CONNECTOR, BOARD TO BOARD 20P	
CN12		1-573-298-21	CONNECTOR, BOARD TO BOARD 20P	
CN13	*	1-793-922-11	CONNECTOR, DIN (RECEPTACLE)64P	
CN14	*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN15		1-695-915-11	TAB (CONTACT)	
CN16	*	1-564-506-11	PLUG, CONNECTOR 3P	
CN17	*	1-564-508-11	PLUG, CONNECTOR 5P	
CN18	*	1-564-508-11	PLUG, CONNECTOR 5P	
CN19	*	1-564-508-11	PLUG, CONNECTOR 5P	
CN701	*	1-564-507-11	PLUG, CONNECTOR 4P	
CN702	*	1-564-509-11	PLUG, CONNECTOR 6P	
CN703	*	1-564-509-11	PLUG, CONNECTOR 6P	
CN704	*	1-564-509-11	PLUG, CONNECTOR 6P	
CN705	*	1-564-507-11	PLUG, CONNECTOR 4P	
CN706	*	1-564-507-11	PLUG, CONNECTOR 4P	

< DIODE >

D1	8-719-404-50	MA111-TX
D5	8-719-083-87	UDZS-TE17-33B
D7	8-719-069-55	UDZSTE-175.6B
D307	8-719-069-33	DTZ-TT11-6.8B
D312	8-719-069-55	UDZSTE-175.6B
D317	8-719-404-50	MA111-TX
D318	8-719-404-50	MA111-TX
D319	8-719-404-50	MA111-TX
D321	8-719-404-50	MA111-TX
D701	8-719-941-86	DAN202U
D702	8-719-404-50	MA111-TX
D703	8-719-083-57	DIODE UDZSTE-173.6B
D704	8-719-941-86	DAN202U
D705	8-719-083-87	UDZS-TE17-33B
D706	8-719-083-87	UDZS-TE17-33B
D708	8-719-404-50	MA111-TX
D709	8-719-404-50	MA111-TX
D710	8-719-941-86	DAN202U
D711	8-719-941-86	DAN202U
D712	8-719-941-86	DAN202U
D713	8-719-941-86	DAN202U
D718	8-719-404-50	MA111-TX
D719	8-719-404-50	MA111-TX
D720	8-719-920-67	ERC91-02
D721	8-719-920-67	ERC91-02
D723	8-719-083-85	UDZS-TE17-22B
D724	8-719-083-85	UDZS-TE17-22B
D725	8-719-083-85	UDZS-TE17-22B
D726	8-719-083-85	UDZS-TE17-22B
D729	8-719-404-50	MA111-TX
D730	8-719-069-33	DTZ-TT11-6.8B

< FERRITE BEAD >

FB1	1-414-445-11	FERRITE	0UH
FB2	1-414-445-11	FERRITE	0UH
FB3	1-414-445-11	FERRITE	0UH

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION		REMARK
FB4	1-414-445-11	FERRITE	0UH	
FB5	1-216-864-11	SHORT	0	
FB6	1-414-445-11	FERRITE	0UH	
FB301	1-414-760-21	FERRITE	0UH	
		< FILTER >		
FL3	1-233-512-21	FERRITE	37UH	
FL4	1-239-848-11	FILTER, LOW PASS		
FL5	1-239-848-11	FILTER, LOW PASS		
FL6	1-239-848-11	FILTER, LOW PASS		
FL7	1-239-848-11	FILTER, LOW PASS		
		< IC >		
IC1	8-759-445-59	BA033T		
IC2	8-759-198-03	PQ09RF21		
IC3	8-759-830-08	IC NJM2068V-TE2		
IC4	8-759-568-27	MSM514265C-60JS		
IC5	8-759-100-96	UPC4558G2		
IC6	8-759-594-44	UPD64082GF-3BA		
IC7	8-759-100-96	UPC4558G2		
IC8	8-759-445-59	BA033T		
IC9	8-759-231-58	TA7812S		
IC10	8-759-100-96	UPC4558G2		
IC11	8-759-100-96	UPC4558G2		
IC12	8-759-833-12	IC NJM2395AF05		
IC301	8-752-089-50	CXA2103Q		
IC302	8-752-916-40	CXP85840A-039Q		
IC303	8-752-089-50	CXA2103Q		
IC304	8-752-916-40	CXP85840A-039Q		
IC305	8-759-595-97	SN74LV4053ANSR		
IC306	8-752-093-84	CXA2151Q		
IC307	8-759-595-97	SN74LV4053ANSR		
IC308	8-752-395-13	CXD2085M-T4		
IC309	8-752-100-25	CXA2150AQ		
IC310	8-759-349-11	PST9145NL		
IC311	8-759-700-07	NJM2903M		
IC312	8-759-082-58	TC7W08FU		
IC701	8-759-349-11	PST9145NL		
IC702	8-759-575-71	IC M24C04-WMN6T		
IC703	8-759-675-64	IC M24C08-MN6T(A)		
IC704	8-759-833-74	IC M306V2ME-175FP		
IC705	8-752-068-37	CXA1726AM		
IC706	8-752-068-37	CXA1726AM		
IC707	8-759-100-96	UPC4558G2		
IC708	8-759-190-89	TDA7265		
IC709	8-759-830-08	IC NJM2068V-TE2		
IC710	8-759-830-08	IC NJM2068V-TE2		
IC711	8-759-690-57	BH3868BFS-E2		
		< COIL >		
L1	1-414-181-11	INDUCTOR	4.7UH	
L2	1-412-058-11	INDUCTOR	10UH	
L3	1-412-058-11	INDUCTOR	10UH	
L4	1-412-058-11	INDUCTOR	10UH	
L5	1-414-193-41	INDUCTOR	220UH	
L6	1-412-058-11	INDUCTOR	10UH	
L7	1-414-856-11	INDUCTOR	10UH	

REF. NO.	PART NO.	DESCRIPTION		REMARK
L8	1-414-856-11	INDUCTOR	10UH	
L9	1-414-856-11	INDUCTOR	10UH	
L10	1-412-537-31	INDUCTOR	100UH	
L11	1-414-856-11	INDUCTOR	10UH	
L12	1-414-856-11	INDUCTOR	10UH	
L13	1-414-856-11	INDUCTOR	10UH	
L301	1-469-555-21	INDUCTOR	10UH	
L302	1-469-555-21	INDUCTOR	10UH	
L303	1-469-555-21	INDUCTOR	10UH	
L304	1-469-555-21	INDUCTOR	10UH	
L305	1-469-555-21	INDUCTOR	10UH	
L306	1-414-193-41	INDUCTOR	220UH	
L307	1-469-555-21	INDUCTOR	10UH	
L308	1-414-856-11	INDUCTOR	10UH	
L309	1-469-555-21	INDUCTOR	10UH	
L310	1-469-555-21	INDUCTOR	10UH	
L311	1-469-555-21	INDUCTOR	10UH	
L312	1-469-555-21	INDUCTOR	10UH	
L313	1-414-856-11	INDUCTOR	10UH	
L314	1-469-555-21	INDUCTOR	10UH	
L315	1-469-555-21	INDUCTOR	10UH	
L316	1-414-856-11	INDUCTOR	10UH	
L317	1-414-856-11	INDUCTOR	10UH	
L321	1-414-856-11	INDUCTOR	10UH	
L701	1-414-179-21	INDUCTOR	2.2UH	
L702	1-412-911-11	FERRITE	0UH	
L704	1-469-555-21	INDUCTOR	10UH	
L705	1-469-555-21	INDUCTOR	10UH	
		< NEON LAMP >		
NL701	1-517-778-21	LAMP, NEON		
NL702	1-517-778-21	LAMP, NEON		
NL703	1-517-778-21	LAMP, NEON		
		< IC LINK >		
PS1	⚠ 1-532-679-00	LINK, IC		
PS2	⚠ 1-532-685-00	LINK, IC		
PS3	⚠ 1-532-679-00	LINK, IC		
PS701	⚠ 1-576-336-21	LINK, IC		
PS702	⚠ 1-576-336-21	LINK, IC		
		< TRANSISTOR >		
Q1	8-729-026-49	2SA1037AK-T146-R		
Q2	8-729-026-49	2SA1037AK-T146-R		
Q3	8-729-422-27	2SD601A-Q		
Q4	8-729-026-49	2SA1037AK-T146-R		
Q5	8-729-422-27	2SD601A-Q		
Q6	8-729-422-27	2SD601A-Q		
Q7	8-729-026-49	2SA1037AK-T146-R		
Q8	8-729-026-49	2SA1037AK-T146-R		
Q11	8-729-422-27	2SD601A-Q		
Q12	8-729-026-49	2SA1037AK-T146-R		
Q13	8-729-026-49	2SA1037AK-T146-R		
Q14	8-729-422-27	2SD601A-Q		
Q15	8-729-026-49	2SA1037AK-T146-R		
Q16	8-729-026-49	2SA1037AK-T146-R		
Q17	8-729-422-27	2SD601A-Q		

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REF. NO.	PART NO.	DESCRIPTION	REMARK
Q18	8-729-422-27	2SD601A-Q	
Q19	8-729-422-27	2SD601A-Q	
Q20	8-729-422-27	2SD601A-Q	
Q21	8-729-026-49	2SA1037AK-T146-R	
Q22	8-729-422-27	2SD601A-Q	
Q23	8-729-422-27	2SD601A-Q	
Q24	8-729-422-27	2SD601A-Q	
Q25	8-729-422-27	2SD601A-Q	
Q26	8-729-422-27	2SD601A-Q	
Q27	8-729-422-27	2SD601A-Q	
Q28	8-729-026-49	2SA1037AK-T146-R	
Q301	8-729-422-27	2SD601A-Q	
Q302	8-729-422-27	2SD601A-Q	
Q303	8-729-026-49	2SA1037AK-T146-R	
Q304	8-729-422-27	2SD601A-Q	
Q305	8-729-422-27	2SD601A-Q	
Q306	8-729-422-27	2SD601A-Q	
Q307	8-729-422-27	2SD601A-Q	
Q308	8-729-026-49	2SA1037AK-T146-R	
Q309	8-729-422-27	2SD601A-Q	
Q310	8-729-422-27	2SD601A-Q	
Q311	8-729-422-27	2SD601A-Q	
Q312	8-729-026-49	2SA1037AK-T146-R	
Q313	8-729-422-27	2SD601A-Q	
Q314	8-729-422-27	2SD601A-Q	
Q315	8-729-422-27	2SD601A-Q	
Q316	8-729-422-27	2SD601A-Q	
Q317	8-729-422-27	2SD601A-Q	
Q318	8-729-422-27	2SD601A-Q	
Q319	8-729-422-27	2SD601A-Q	
Q320	8-729-422-27	2SD601A-Q	
Q321	8-729-422-27	2SD601A-Q	
Q322	8-729-422-27	2SD601A-Q	
Q323	8-729-422-27	2SD601A-Q	
Q324	8-729-422-27	2SD601A-Q	
Q325	8-729-026-49	2SA1037AK-T146-R	
Q326	8-729-026-49	2SA1037AK-T146-R	
Q327	8-729-026-49	2SA1037AK-T146-R	
Q328	8-729-026-49	2SA1037AK-T146-R	
Q329	8-729-026-49	2SA1037AK-T146-R	
Q330	8-729-026-49	2SA1037AK-T146-R	
Q331	8-729-026-49	2SA1037AK-T146-R	
Q332	8-729-026-49	2SA1037AK-T146-R	
Q333	8-729-026-49	2SA1037AK-T146-R	
Q334	8-729-026-49	2SA1037AK-T146-R	
Q335	8-729-422-27	2SD601A-Q	
Q336	8-729-422-27	2SD601A-Q	
Q337	8-729-422-27	2SD601A-Q	
Q338	8-729-422-27	2SD601A-Q	
Q339	8-729-422-27	2SD601A-Q	
Q340	8-729-422-27	2SD601A-Q	
Q341	8-729-422-27	2SD601A-Q	
Q342	8-729-422-27	2SD601A-Q	
Q343	8-729-122-63	2SA1226	
Q344	8-729-026-49	2SA1037AK-T146-R	
Q345	8-729-026-49	2SA1037AK-T146-R	
Q346	8-729-422-27	2SD601A-Q	
Q347	8-729-122-63	2SA1226	
Q348	8-729-026-49	2SA1037AK-T146-R	
Q349	8-729-422-27	2SD601A-Q	
Q350	8-729-422-27	2SD601A-Q	
Q351	8-729-122-63	2SA1226	
Q352	8-729-422-27	2SD601A-Q	
Q353	8-729-026-49	2SA1037AK-T146-R	
Q354	8-729-026-49	2SA1037AK-T146-R	
Q355	8-729-422-27	2SD601A-Q	
Q356	8-729-026-49	2SA1037AK-T146-R	
Q357	8-729-026-49	2SA1037AK-T146-R	
Q358	8-729-026-49	2SA1037AK-T146-R	
Q361	8-729-422-27	2SD601A-Q	
Q363	8-729-422-27	2SD601A-Q	
Q367	8-729-122-63	2SA1226	
Q368	8-729-422-27	2SD601A-Q	
Q369	1-801-806-11	TR DTC144EKA	
Q373	8-729-422-27	2SD601A-Q	
Q374	8-729-422-27	2SD601A-Q	
Q378	8-729-422-27	2SD601A-Q	
Q379	8-729-026-49	2SA1037AK-T146-R	
Q380	8-729-422-27	2SD601A-Q	
Q381	8-729-422-27	2SD601A-Q	
Q701	8-729-422-27	2SD601A-Q	
Q702	8-729-026-49	2SA1037AK-T146-R	
Q703	8-729-422-27	2SD601A-Q	
Q704	8-729-026-49	2SA1037AK-T146-R	
Q705	8-729-422-27	2SD601A-Q	
Q706	8-729-026-49	2SA1037AK-T146-R	
Q707	1-801-806-11	TR DTC144EKA	
Q708	8-729-422-27	2SD601A-Q	
Q709	8-729-422-27	2SD601A-Q	
Q710	8-729-422-27	2SD601A-Q	
Q712	8-729-026-49	2SA1037AK-T146-R	
Q713	8-729-026-49	2SA1037AK-T146-R	
Q714	8-729-027-38	DTA144EKA-T146	
Q715	8-729-422-27	2SD601A-Q	
Q716	8-729-422-27	2SD601A-Q	
Q717	8-729-422-27	2SD601A-Q	
Q718	8-729-422-27	2SD601A-Q	
Q721	8-729-026-49	2SA1037AK-T146-R	
Q722	8-729-422-27	2SD601A-Q	
Q723	8-729-422-27	2SD601A-Q	
Q724	8-729-422-27	2SD601A-Q	
Q725	8-729-026-49	2SA1037AK-T146-R	
Q726	8-729-026-49	2SA1037AK-T146-R	

< RESISTOR >

R1	1-216-464-11	METAL OXIDE	18K	5%	2W
R2	1-216-813-11	RES-CHIP	220	5%	1/16W
R3	1-216-813-11	RES-CHIP	220	5%	1/16W
R4	1-216-813-11	RES-CHIP	220	5%	1/16W
R5	1-216-813-11	RES-CHIP	220	5%	1/16W
R6	1-216-813-11	RES-CHIP	220	5%	1/16W
R7	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8	1-216-813-11	RES-CHIP	220	5%	1/16W
R9	1-216-813-11	RES-CHIP	220	5%	1/16W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R10	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R11	1-218-720-11	METAL CHIP	15K	0.5%	1/16W
R12	1-218-722-11	METAL CHIP	18K	0.5%	1/16W
R13	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R14	1-218-295-11	RES-CHIP	43K	5%	1/16W
R15	1-216-821-11	RES-CHIP	1K	5%	1/16W
R16	1-218-702-11	METAL CHIP	2.7K	0.5%	1/16W
R17	1-218-706-11	METAL CHIP	3.9K	0.5%	1/16W
R18	1-218-714-11	METAL CHIP	8.2K	0.5%	1/16W
R19	1-216-817-11	RES-CHIP	470	5%	1/16W
R20	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R21	1-216-839-11	RES-CHIP	33K	5%	1/16W
R22	1-216-817-11	RES-CHIP	470	5%	1/16W
R23	1-216-809-11	RES-CHIP	100	5%	1/16W
R24	1-216-809-11	RES-CHIP	100	5%	1/16W
R25	1-216-809-11	RES-CHIP	100	5%	1/16W
R26	1-216-809-11	RES-CHIP	100	5%	1/16W
R27	1-218-707-11	METAL CHIP	4.3K	0.5%	1/16W
R29	1-216-864-11	SHORT	0		
R30	1-216-809-11	RES-CHIP	100	5%	1/16W
R31	1-216-809-11	RES-CHIP	100	5%	1/16W
R32	1-216-864-11	SHORT	0		
R33	1-216-809-11	RES-CHIP	100	5%	1/16W
R37	1-216-853-11	RES-CHIP	470K	5%	1/16W
R39	1-216-855-11	RES-CHIP	680K	5%	1/16W
R40	1-216-809-11	RES-CHIP	100	5%	1/16W
R42	1-216-855-11	RES-CHIP	680K	5%	1/16W
R43	1-216-853-11	RES-CHIP	470K	5%	1/16W
R44	1-249-377-11	CARBON	0.47	5%	1/4W
R46	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R48	1-216-809-11	RES-CHIP	100	5%	1/16W
R49	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R50	1-216-809-11	RES-CHIP	100	5%	1/16W
R51	1-216-833-11	RES-CHIP	10K	5%	1/16W
R52	1-216-833-11	RES-CHIP	10K	5%	1/16W
R53	1-216-817-11	RES-CHIP	470	5%	1/16W
R54	1-216-817-11	RES-CHIP	470	5%	1/16W
R55	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R56	1-216-805-11	RES-CHIP	47	5%	1/16W
R57	1-216-805-11	RES-CHIP	47	5%	1/16W
R59	1-216-821-11	RES-CHIP	1K	5%	1/16W
R60	1-216-833-11	RES-CHIP	10K	5%	1/16W
R61	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R62	1-216-821-11	RES-CHIP	1K	5%	1/16W
R63	1-216-809-11	RES-CHIP	100	5%	1/16W
R64	1-216-837-11	RES-CHIP	22K	5%	1/16W
R65	1-216-833-11	RES-CHIP	10K	5%	1/16W
R66	1-216-849-11	RES-CHIP	220K	5%	1/16W
R67	1-216-841-11	RES-CHIP	47K	5%	1/16W
R68	1-216-839-11	RES-CHIP	33K	5%	1/16W
R69	1-216-857-11	RES-CHIP	1M	5%	1/16W
R70	1-216-845-11	RES-CHIP	100K	5%	1/16W
R71	1-216-813-11	RES-CHIP	220	5%	1/16W
R72	1-216-821-11	RES-CHIP	1K	5%	1/16W
R73	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R74	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R75	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R76	1-216-818-11	RES-CHIP	560	5%	1/16W
R77	1-216-821-11	RES-CHIP	1K	5%	1/16W
R78	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R79	1-216-818-11	RES-CHIP	560	5%	1/16W
R80	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R81	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R82	1-216-821-11	RES-CHIP	1K	5%	1/16W
R85	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R87	1-216-833-11	RES-CHIP	10K	5%	1/16W
R88	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R89	1-216-813-11	RES-CHIP	220	5%	1/16W
R90	1-216-864-11	SHORT	0		
R91	1-216-864-11	SHORT	0		
R92	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R93	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R95	1-216-818-11	RES-CHIP	560	5%	1/16W
R96	1-216-818-11	RES-CHIP	560	5%	1/16W
R99	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R100	1-216-833-11	RES-CHIP	10K	5%	1/16W
R102	1-216-818-11	RES-CHIP	560	5%	1/16W
R103	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R104	1-216-821-11	RES-CHIP	1K	5%	1/16W
R105	1-216-821-11	RES-CHIP	1K	5%	1/16W
R107	1-216-833-11	RES-CHIP	10K	5%	1/16W
R108	1-216-818-11	RES-CHIP	560	5%	1/16W
R109	1-216-807-11	RES-CHIP	68	5%	1/16W
R110	1-216-809-11	RES-CHIP	100	5%	1/16W
R111	1-216-809-11	RES-CHIP	100	5%	1/16W
R112	1-216-857-11	RES-CHIP	1M	5%	1/16W
R113	1-216-845-11	RES-CHIP	100K	5%	1/16W
R114	1-216-809-11	RES-CHIP	100	5%	1/16W
R115	1-216-820-11	RES-CHIP	820	5%	1/16W
R116	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R117	1-216-821-11	RES-CHIP	1K	5%	1/16W
R118	1-216-820-11	RES-CHIP	820	5%	1/16W
R119	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R120	1-216-834-11	RES-CHIP	12K	5%	1/16W
R121	1-216-839-11	RES-CHIP	33K	5%	1/16W
R122	1-216-820-11	RES-CHIP	820	5%	1/16W
R123	1-216-833-11	RES-CHIP	10K	5%	1/16W
R124	1-216-834-11	RES-CHIP	12K	5%	1/16W
R125	1-216-839-11	RES-CHIP	33K	5%	1/16W
R126	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R127	1-216-839-11	RES-CHIP	33K	5%	1/16W
R128	1-216-821-11	RES-CHIP	1K	5%	1/16W
R129	1-216-805-11	RES-CHIP	47	5%	1/16W
R130	1-216-821-11	RES-CHIP	1K	5%	1/16W
R131	1-216-837-11	RES-CHIP	22K	5%	1/16W
R133	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R134	1-218-683-11	METAL CHIP	430	0.5%	1/16W
R135	1-216-809-11	RES-CHIP	100	5%	1/16W
R136	1-216-821-11	RES-CHIP	1K	5%	1/16W
R137	1-216-833-11	RES-CHIP	10K	5%	1/16W
R138	1-216-833-11	RES-CHIP	10K	5%	1/16W
R139	1-216-841-11	RES-CHIP	47K	5%	1/16W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R140	1-216-833-11	RES-CHIP	10K	5%	1/16W
R141	1-216-809-11	RES-CHIP	100	5%	1/16W
R142	1-216-843-11	RES-CHIP	68K	5%	1/16W
R143	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R144	1-216-843-11	RES-CHIP	68K	5%	1/16W
R145	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R146	1-218-295-11	RES-CHIP	43K	5%	1/16W
R151	1-216-833-11	RES-CHIP	10K	5%	1/16W
R152	1-216-833-11	RES-CHIP	10K	5%	1/16W
R153	1-216-833-11	RES-CHIP	10K	5%	1/16W
R154	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R155	1-216-864-11	SHORT	0		
R301	1-216-809-11	RES-CHIP	100	5%	1/16W
R302	1-216-809-11	RES-CHIP	100	5%	1/16W
R303	1-216-833-11	RES-CHIP	10K	5%	1/16W
R304	1-216-833-11	RES-CHIP	10K	5%	1/16W
R305	1-216-835-11	RES-CHIP	15K	5%	1/16W
R306	1-218-696-11	METAL CHIP	1.5K	0.5%	1/16W
R307	1-218-696-11	METAL CHIP	1.5K	0.5%	1/16W
R308	1-216-821-11	RES-CHIP	1K	5%	1/16W
R309	1-216-813-11	RES-CHIP	220	5%	1/16W
R310	1-216-857-11	RES-CHIP	1M	5%	1/16W
R311	1-216-840-11	RES-CHIP	39K	5%	1/16W
R312	1-216-809-11	RES-CHIP	100	5%	1/16W
R313	1-216-833-11	RES-CHIP	10K	5%	1/16W
R314	1-216-833-11	RES-CHIP	10K	5%	1/16W
R315	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R316	1-216-821-11	RES-CHIP	1K	5%	1/16W
R317	1-216-821-11	RES-CHIP	1K	5%	1/16W
R318	1-216-833-11	RES-CHIP	10K	5%	1/16W
R319	1-216-864-11	SHORT	0		
R320	1-216-833-11	RES-CHIP	10K	5%	1/16W
R321	1-216-821-11	RES-CHIP	1K	5%	1/16W
R322	1-216-809-11	RES-CHIP	100	5%	1/16W
R323	1-216-809-11	RES-CHIP	100	5%	1/16W
R324	1-216-809-11	RES-CHIP	100	5%	1/16W
R325	1-216-835-11	RES-CHIP	15K	5%	1/16W
R326	1-216-864-11	SHORT	0		
R327	1-216-817-11	RES-CHIP	470	5%	1/16W
R329	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R330	1-216-828-11	RES-CHIP	3.9K	5%	1/16W
R331	1-216-833-11	RES-CHIP	10K	5%	1/16W
R332	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R333	1-216-809-11	RES-CHIP	100	5%	1/16W
R334	1-216-809-11	RES-CHIP	100	5%	1/16W
R335	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R336	1-216-809-11	RES-CHIP	100	5%	1/16W
R337	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R338	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R339	1-216-809-11	RES-CHIP	100	5%	1/16W
R340	1-216-828-11	RES-CHIP	3.9K	5%	1/16W
R341	1-218-706-11	METAL CHIP	3.9K	0.5%	1/16W
R342	1-216-841-11	RES-CHIP	47K	5%	1/16W
R343	1-216-809-11	RES-CHIP	100	5%	1/16W
R344	1-216-809-11	RES-CHIP	100	5%	1/16W
R345	1-218-696-11	METAL CHIP	1.5K	0.5%	1/16W
R346	1-218-696-11	METAL CHIP	1.5K	0.5%	1/16W
R347	1-216-817-11	RES-CHIP	470	5%	1/16W
R348	1-216-841-11	RES-CHIP	47K	5%	1/16W
R349	1-216-813-11	RES-CHIP	220	5%	1/16W
R350	1-216-809-11	RES-CHIP	100	5%	1/16W
R351	1-216-813-11	RES-CHIP	220	5%	1/16W
R352	1-216-813-11	RES-CHIP	220	5%	1/16W
R353	1-216-809-11	RES-CHIP	100	5%	1/16W
R354	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R355	1-216-809-11	RES-CHIP	100	5%	1/16W
R356	1-216-841-11	RES-CHIP	47K	5%	1/16W
R357	1-216-837-11	RES-CHIP	22K	5%	1/16W
R358	1-216-837-11	RES-CHIP	22K	5%	1/16W
R359	1-216-837-11	RES-CHIP	22K	5%	1/16W
R360	1-216-837-11	RES-CHIP	22K	5%	1/16W
R361	1-216-837-11	RES-CHIP	22K	5%	1/16W
R362	1-216-837-11	RES-CHIP	22K	5%	1/16W
R363	1-216-809-11	RES-CHIP	100	5%	1/16W
R364	1-216-809-11	RES-CHIP	100	5%	1/16W
R365	1-216-809-11	RES-CHIP	100	5%	1/16W
R366	1-216-841-11	RES-CHIP	47K	5%	1/16W
R367	1-216-821-11	RES-CHIP	1K	5%	1/16W
R368	1-216-821-11	RES-CHIP	1K	5%	1/16W
R369	1-216-821-11	RES-CHIP	1K	5%	1/16W
R370	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R371	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R372	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R373	1-216-809-11	RES-CHIP	100	5%	1/16W
R374	1-216-815-11	RES-CHIP	330	5%	1/16W
R375	1-216-815-11	RES-CHIP	330	5%	1/16W
R376	1-216-815-11	RES-CHIP	330	5%	1/16W
R377	1-216-837-11	RES-CHIP	22K	5%	1/16W
R378	1-216-837-11	RES-CHIP	22K	5%	1/16W
R379	1-216-837-11	RES-CHIP	22K	5%	1/16W
R380	1-216-837-11	RES-CHIP	22K	5%	1/16W
R381	1-216-837-11	RES-CHIP	22K	5%	1/16W
R382	1-216-837-11	RES-CHIP	22K	5%	1/16W
R383	1-216-809-11	RES-CHIP	100	5%	1/16W
R384	1-216-809-11	RES-CHIP	100	5%	1/16W
R385	1-216-821-11	RES-CHIP	1K	5%	1/16W
R386	1-216-809-11	RES-CHIP	100	5%	1/16W
R387	1-216-845-11	RES-CHIP	100K	5%	1/16W
R388	1-216-837-11	RES-CHIP	22K	5%	1/16W
R389	1-216-809-11	RES-CHIP	100	5%	1/16W
R390	1-216-809-11	RES-CHIP	100	5%	1/16W
R391	1-216-809-11	RES-CHIP	100	5%	1/16W
R392	1-216-809-11	RES-CHIP	100	5%	1/16W
R393	1-216-809-11	RES-CHIP	100	5%	1/16W
R394	1-216-809-11	RES-CHIP	100	5%	1/16W
R395	1-216-821-11	RES-CHIP	1K	5%	1/16W
R396	1-216-821-11	RES-CHIP	1K	5%	1/16W
R397	1-216-821-11	RES-CHIP	1K	5%	1/16W
R398	1-216-845-11	RES-CHIP	100K	5%	1/16W
R399	1-216-833-11	RES-CHIP	10K	5%	1/16W
R400	1-216-845-11	RES-CHIP	100K	5%	1/16W
R401	1-216-845-11	RES-CHIP	100K	5%	1/16W
R402	1-216-845-11	RES-CHIP	100K	5%	1/16W
R403	1-216-845-11	RES-CHIP	100K	5%	1/16W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R404	1-216-845-11	RES-CHIP	100K	5%	1/16W
R405	1-216-845-11	RES-CHIP	100K	5%	1/16W
R406	1-216-864-11	SHORT	0		
R407	1-216-833-11	RES-CHIP	10K	5%	1/16W
R408	1-216-821-11	RES-CHIP	1K	5%	1/16W
R409	1-216-821-11	RES-CHIP	1K	5%	1/16W
R410	1-218-673-11	METAL CHIP	160	0.5%	1/16W
R411	1-218-673-11	METAL CHIP	160	0.5%	1/16W
R412	1-216-813-11	RES-CHIP	220	5%	1/16W
R413	1-218-668-11	METAL CHIP	100	0.5%	1/16W
R414	1-218-668-11	METAL CHIP	100	0.5%	1/16W
R415	1-218-668-11	METAL CHIP	100	0.5%	1/16W
R416	1-216-857-11	RES-CHIP	1M	5%	1/16W
R417	1-216-809-11	RES-CHIP	100	5%	1/16W
R418	1-216-809-11	RES-CHIP	100	5%	1/16W
R419	1-218-702-11	METAL CHIP	2.7K	0.5%	1/16W
R420	1-218-698-11	METAL CHIP	1.8K	0.5%	1/16W
R421	1-216-809-11	RES-CHIP	100	5%	1/16W
R422	1-216-809-11	RES-CHIP	100	5%	1/16W
R423	1-216-809-11	RES-CHIP	100	5%	1/16W
R424	1-218-674-11	METAL CHIP	180	0.5%	1/16W
R425	1-218-674-11	METAL CHIP	180	0.5%	1/16W
R426	1-218-674-11	METAL CHIP	180	0.5%	1/16W
R427	1-218-673-11	METAL CHIP	160	0.5%	1/16W
R428	1-216-864-11	SHORT	0		
R431	1-216-809-11	RES-CHIP	100	5%	1/16W
R432	1-216-817-11	RES-CHIP	470	5%	1/16W
R433	1-216-817-11	RES-CHIP	470	5%	1/16W
R434	1-216-809-11	RES-CHIP	100	5%	1/16W
R435	1-216-817-11	RES-CHIP	470	5%	1/16W
R436	1-216-809-11	RES-CHIP	100	5%	1/16W
R437	1-216-809-11	RES-CHIP	100	5%	1/16W
R438	1-216-809-11	RES-CHIP	100	5%	1/16W
R439	1-216-817-11	RES-CHIP	470	5%	1/16W
R440	1-216-813-11	RES-CHIP	220	5%	1/16W
R441	1-216-813-11	RES-CHIP	220	5%	1/16W
R442	1-216-813-11	RES-CHIP	220	5%	1/16W
R443	1-216-809-11	RES-CHIP	100	5%	1/16W
R444	1-216-809-11	RES-CHIP	100	5%	1/16W
R445	1-216-809-11	RES-CHIP	100	5%	1/16W
R446	1-216-809-11	RES-CHIP	100	5%	1/16W
R447	1-216-809-11	RES-CHIP	100	5%	1/16W
R448	1-216-809-11	RES-CHIP	100	5%	1/16W
R449	1-216-809-11	RES-CHIP	100	5%	1/16W
R450	1-216-814-11	RES-CHIP	270	5%	1/16W
R451	1-216-814-11	RES-CHIP	270	5%	1/16W
R452	1-216-814-11	RES-CHIP	270	5%	1/16W
R453	1-216-841-11	RES-CHIP	47K	5%	1/16W
R454	1-216-837-11	RES-CHIP	22K	5%	1/16W
R455	1-216-837-11	RES-CHIP	22K	5%	1/16W
R456	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R457	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R458	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R459	1-216-815-11	RES-CHIP	330	5%	1/16W
R460	1-216-815-11	RES-CHIP	330	5%	1/16W
R461	1-216-815-11	RES-CHIP	330	5%	1/16W
R462	1-216-817-11	RES-CHIP	470	5%	1/16W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R463	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R464	1-216-809-11	RES-CHIP	100	5%	1/16W
R468	1-216-809-11	RES-CHIP	100	5%	1/16W
R469	1-216-797-11	RES-CHIP	10	5%	1/16W
R470	1-216-839-11	RES-CHIP	33K	5%	1/16W
R472	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R473	1-216-809-11	RES-CHIP	100	5%	1/16W
R476	1-216-808-11	RES-CHIP	82	5%	1/16W
R477	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R480	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R481	1-216-821-11	RES-CHIP	1K	5%	1/16W
R482	1-216-839-11	RES-CHIP	33K	5%	1/16W
R483	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R484	1-216-809-11	RES-CHIP	100	5%	1/16W
R486	1-216-809-11	RES-CHIP	100	5%	1/16W
R487	1-216-809-11	RES-CHIP	100	5%	1/16W
R489	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R490	1-216-808-11	RES-CHIP	82	5%	1/16W
R491	1-216-833-11	RES-CHIP	10K	5%	1/16W
R492	1-216-864-11	SHORT	0		
R493	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R494	1-216-833-11	RES-CHIP	10K	5%	1/16W
R495	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R496	1-216-809-11	RES-CHIP	100	5%	1/16W
R501	1-216-808-11	RES-CHIP	82	5%	1/16W
R503	1-216-833-11	RES-CHIP	10K	5%	1/16W
R504	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R505	1-216-821-11	RES-CHIP	1K	5%	1/16W
R506	1-216-837-11	RES-CHIP	22K	5%	1/16W
R507	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R508	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R509	1-216-837-11	RES-CHIP	22K	5%	1/16W
R511	1-216-847-11	RES-CHIP	150K	5%	1/16W
R512	1-216-864-11	SHORT	0		
R514	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R515	1-216-809-11	RES-CHIP	100	5%	1/16W
R516	1-216-809-11	RES-CHIP	100	5%	1/16W
R517	1-216-809-11	RES-CHIP	100	5%	1/16W
R519	1-216-809-11	RES-CHIP	100	5%	1/16W
R521	1-216-833-11	RES-CHIP	10K	5%	1/16W
R526	1-216-839-11	RES-CHIP	33K	5%	1/16W
R527	1-216-864-11	SHORT	0		
R538	1-216-809-11	RES-CHIP	100	5%	1/16W
R540	1-216-809-11	RES-CHIP	100	5%	1/16W
R541	1-216-831-11	RES-CHIP	6.8K	5%	1/16W
R542	1-216-809-11	RES-CHIP	100	5%	1/16W
R543	1-216-826-11	RES-CHIP	2.7K	5%	1/16W
R544	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R547	1-216-809-11	RES-CHIP	100	5%	1/16W
R550	1-216-863-11	RES-CHIP	3.3M	5%	1/16W
R551	1-216-833-11	RES-CHIP	10K	5%	1/16W
R552	1-216-809-11	RES-CHIP	100	5%	1/16W
R553	1-216-834-11	RES-CHIP	12K	5%	1/16W
R554	1-216-809-11	RES-CHIP	100	5%	1/16W
R556	1-216-808-11	RES-CHIP	82	5%	1/16W
R557	1-216-808-11	RES-CHIP	82	5%	1/16W
R558	1-216-808-11	RES-CHIP	82	5%	1/16W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R559	1-216-817-11	RES-CHIP	470	5%	1/16W
R561	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R562	1-216-817-11	RES-CHIP	470	5%	1/16W
R566	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R567	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R568	1-216-809-11	RES-CHIP	100	5%	1/16W
R569	1-216-809-11	RES-CHIP	100	5%	1/16W
R570	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R571	1-216-864-11	SHORT	0		
R572	1-216-835-11	RES-CHIP	15K	5%	1/16W
R574	1-216-833-11	RES-CHIP	10K	5%	1/16W
R575	1-216-833-11	RES-CHIP	10K	5%	1/16W
R576	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R577	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R593	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R596	1-216-841-11	RES-CHIP	47K	5%	1/16W
R597	1-216-821-11	RES-CHIP	1K	5%	1/16W
R598	1-216-833-11	RES-CHIP	10K	5%	1/16W
R599	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R602	1-216-837-11	RES-CHIP	22K	5%	1/16W
R603	1-216-833-11	RES-CHIP	10K	5%	1/16W
R604	1-216-833-11	RES-CHIP	10K	5%	1/16W
R605	1-216-833-11	RES-CHIP	10K	5%	1/16W
R606	1-216-833-11	RES-CHIP	10K	5%	1/16W
R607	1-216-833-11	RES-CHIP	10K	5%	1/16W
R608	1-216-833-11	RES-CHIP	10K	5%	1/16W
R609	1-216-809-11	RES-CHIP	100	5%	1/16W
R613	1-216-833-11	RES-CHIP	10K	5%	1/16W
R614	1-216-836-11	RES-CHIP	18K	5%	1/16W
R615	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R616	1-216-833-11	RES-CHIP	10K	5%	1/16W
R617	1-216-809-11	RES-CHIP	100	5%	1/16W
R618	1-216-809-11	RES-CHIP	100	5%	1/16W
R619	1-216-821-11	RES-CHIP	1K	5%	1/16W
R620	1-216-807-11	RES-CHIP	68	5%	1/16W
R621	1-216-807-11	RES-CHIP	68	5%	1/16W
R622	1-216-807-11	RES-CHIP	68	5%	1/16W
R624	1-216-809-11	RES-CHIP	100	5%	1/16W
R628	1-249-377-11	CARBON	0.47	5%	1/4W
R701	1-216-817-11	RES-CHIP	470	5%	1/16W
R702	1-216-841-11	RES-CHIP	47K	5%	1/16W
R703	1-216-821-11	RES-CHIP	1K	5%	1/16W
R705	1-216-809-11	RES-CHIP	100	5%	1/16W
R706	1-216-809-11	RES-CHIP	100	5%	1/16W
R707	1-216-809-11	RES-CHIP	100	5%	1/16W
R708	1-216-809-11	RES-CHIP	100	5%	1/16W
R709	1-216-817-11	RES-CHIP	470	5%	1/16W
R710	1-216-813-11	RES-CHIP	220	5%	1/16W
R711	1-216-833-11	RES-CHIP	10K	5%	1/16W
R712	1-216-813-11	RES-CHIP	220	5%	1/16W
R714	1-216-809-11	RES-CHIP	100	5%	1/16W
R715	1-216-809-11	RES-CHIP	100	5%	1/16W
R716	1-216-821-11	RES-CHIP	1K	5%	1/16W
R717	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R718	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R719	1-216-813-11	RES-CHIP	220	5%	1/16W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R720	1-216-809-11	RES-CHIP	100	5%	1/16W
R721	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R722	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R723	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R724	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R725	1-216-809-11	RES-CHIP	100	5%	1/16W
R728	1-216-864-11	SHORT	0		
R732	1-216-809-11	RES-CHIP	100	5%	1/16W
R733	1-216-821-11	RES-CHIP	1K	5%	1/16W
R735	1-216-833-11	RES-CHIP	10K	5%	1/16W
R736	1-216-813-11	RES-CHIP	220	5%	1/16W
R737	1-216-833-11	RES-CHIP	10K	5%	1/16W
R738	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R740	1-216-809-11	RES-CHIP	100	5%	1/16W
R742	1-216-821-11	RES-CHIP	1K	5%	1/16W
R743	1-216-809-11	RES-CHIP	100	5%	1/16W
R744	1-216-821-11	RES-CHIP	1K	5%	1/16W
R745	1-216-841-11	RES-CHIP	47K	5%	1/16W
R746	1-216-809-11	RES-CHIP	100	5%	1/16W
R747	1-216-809-11	RES-CHIP	100	5%	1/16W
R748	1-216-833-11	RES-CHIP	10K	5%	1/16W
R749	1-216-849-11	RES-CHIP	220K	5%	1/16W
R750	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R751	1-216-821-11	RES-CHIP	1K	5%	1/16W
R752	1-216-821-11	RES-CHIP	1K	5%	1/16W
R753	1-216-809-11	RES-CHIP	100	5%	1/16W
R754	1-216-809-11	RES-CHIP	100	5%	1/16W
R755	1-216-809-11	RES-CHIP	100	5%	1/16W
R756	1-216-809-11	RES-CHIP	100	5%	1/16W
R758	1-216-809-11	RES-CHIP	100	5%	1/16W
R759	1-216-821-11	RES-CHIP	1K	5%	1/16W
R760	1-216-849-11	RES-CHIP	220K	5%	1/16W
R761	1-216-849-11	RES-CHIP	220K	5%	1/16W
R762	1-216-845-11	RES-CHIP	100K	5%	1/16W
R763	1-216-815-11	RES-CHIP	330	5%	1/16W
R764	1-216-821-11	RES-CHIP	1K	5%	1/16W
R765	1-216-815-11	RES-CHIP	330	5%	1/16W
R766	1-216-821-11	RES-CHIP	1K	5%	1/16W
R767	1-216-833-11	RES-CHIP	10K	5%	1/16W
R768	1-216-809-11	RES-CHIP	100	5%	1/16W
R769	1-216-809-11	RES-CHIP	100	5%	1/16W
R770	1-216-845-11	RES-CHIP	100K	5%	1/16W
R771	1-216-809-11	RES-CHIP	100	5%	1/16W
R772	1-216-821-11	RES-CHIP	1K	5%	1/16W
R773	1-216-809-11	RES-CHIP	100	5%	1/16W
R774	1-216-809-11	RES-CHIP	100	5%	1/16W
R775	1-216-821-11	RES-CHIP	1K	5%	1/16W
R777	1-216-821-11	RES-CHIP	1K	5%	1/16W
R778	1-216-809-11	RES-CHIP	100	5%	1/16W
R779	1-216-809-11	RES-CHIP	100	5%	1/16W
R781	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R782	1-216-809-11	RES-CHIP	100	5%	1/16W
R783	1-216-809-11	RES-CHIP	100	5%	1/16W
R784	1-216-809-11	RES-CHIP	100	5%	1/16W
R785	1-216-821-11	RES-CHIP	1K	5%	1/16W
R786	1-216-821-11	RES-CHIP	1K	5%	1/16W

A

REF. NO.	PART NO.	DESCRIPTION			REMARK
R787	1-216-833-11	RES-CHIP	10K	5%	1/16W
R788	1-216-845-11	RES-CHIP	100K	5%	1/16W
R790	1-216-837-11	RES-CHIP	22K	5%	1/16W
R796	1-216-821-11	RES-CHIP	1K	5%	1/16W
R797	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R803	1-216-833-11	RES-CHIP	10K	5%	1/16W
R804	1-216-837-11	RES-CHIP	22K	5%	1/16W
R806	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R807	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R808	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R809	1-216-835-11	RES-CHIP	15K	5%	1/16W
R810	1-216-833-11	RES-CHIP	10K	5%	1/16W
R811	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R813	1-216-857-11	RES-CHIP	1M	5%	1/16W
R814	1-218-701-11	METAL CHIP	2.4K	0.5%	1/16W
R815	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R816	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R817	1-216-845-11	RES-CHIP	100K	5%	1/16W
R818	1-216-833-11	RES-CHIP	10K	5%	1/16W
R819	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R820	1-216-838-11	RES-CHIP	27K	5%	1/16W
R821	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R823	1-216-835-11	RES-CHIP	15K	5%	1/16W
R824	1-216-838-11	RES-CHIP	27K	5%	1/16W
R825	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R826	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R828	1-216-817-11	RES-CHIP	470	5%	1/16W
R829	1-216-864-11	SHORT	0		
R830	1-216-849-11	RES-CHIP	220K	5%	1/16W
R831	1-216-839-11	RES-CHIP	33K	5%	1/16W
R832	1-216-817-11	RES-CHIP	470	5%	1/16W
R833	1-216-839-11	RES-CHIP	33K	5%	1/16W
R835	1-216-837-11	RES-CHIP	22K	5%	1/16W
R836	1-216-864-11	SHORT	0		
R840	1-216-841-11	RES-CHIP	47K	5%	1/16W
R841	1-216-839-11	RES-CHIP	33K	5%	1/16W
R842	1-216-817-11	RES-CHIP	470	5%	1/16W
R843	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R844	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R845	1-216-817-11	RES-CHIP	470	5%	1/16W
R848	1-216-836-11	RES-CHIP	18K	5%	1/16W
R849	1-216-836-11	RES-CHIP	18K	5%	1/16W
R850	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R851	1-216-833-11	RES-CHIP	10K	5%	1/16W
R852	1-216-833-11	RES-CHIP	10K	5%	1/16W
R854	1-216-838-11	RES-CHIP	27K	5%	1/16W
R855	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R856	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R857	1-216-838-11	RES-CHIP	27K	5%	1/16W
R858	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R859	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R860	1-249-389-11	CARBON	4.7	5%	1/4W
R861	1-249-389-11	CARBON	4.7	5%	1/4W
R862	1-216-839-11	RES-CHIP	33K	5%	1/16W
R863	1-216-841-11	RES-CHIP	47K	5%	1/16W
R864	1-216-839-11	RES-CHIP	33K	5%	1/16W
R865	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R866	1-216-841-11	RES-CHIP	47K	5%	1/16W
R867	1-216-837-11	RES-CHIP	22K	5%	1/16W
R868	1-216-837-11	RES-CHIP	22K	5%	1/16W
R869	1-216-834-11	RES-CHIP	12K	5%	1/16W
R870	1-216-841-11	RES-CHIP	47K	5%	1/16W
R871	1-216-809-11	RES-CHIP	100	5%	1/16W
R872	1-216-809-11	RES-CHIP	100	5%	1/16W
R873	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R874	1-216-841-11	RES-CHIP	47K	5%	1/16W
R875	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R876	1-216-841-11	RES-CHIP	47K	5%	1/16W
R877	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R878	1-216-821-11	RES-CHIP	1K	5%	1/16W
R879	1-216-821-11	RES-CHIP	1K	5%	1/16W
R880	1-216-809-11	RES-CHIP	100	5%	1/16W
R881	1-216-809-11	RES-CHIP	100	5%	1/16W
R882	1-216-809-11	RES-CHIP	100	5%	1/16W
R883	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R884	1-216-833-11	RES-CHIP	10K	5%	1/16W
R885	1-216-833-11	RES-CHIP	10K	5%	1/16W
R886	1-216-833-11	RES-CHIP	10K	5%	1/16W
R887	1-216-821-11	RES-CHIP	1K	5%	1/16W
R888	1-216-849-11	RES-CHIP	220K	5%	1/16W
R889	1-216-807-11	RES-CHIP	68	5%	1/16W
R890	1-216-807-11	RES-CHIP	68	5%	1/16W
R891	1-216-807-11	RES-CHIP	68	5%	1/16W
R892	1-216-837-11	RES-CHIP	22K	5%	1/16W
R893	1-216-857-11	RES-CHIP	1M	5%	1/16W
R895	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R896	1-216-864-11	SHORT	0		
R897	1-216-821-11	RES-CHIP	1K	5%	1/16W
R898	1-216-805-11	RES-CHIP	47	5%	1/16W
R899	1-216-821-11	RES-CHIP	1K	5%	1/16W

< NETWORK RESISTOR >

RB1	1-233-576-11	RES, CHIP NETWORK 100
RB2	1-233-576-11	RES, CHIP NETWORK 100
RB3	1-233-576-11	RES, CHIP NETWORK 100
RB4	1-233-576-11	RES, CHIP NETWORK 100
RB5	1-233-576-11	RES, CHIP NETWORK 100
RB6	1-233-576-11	RES, CHIP NETWORK 100

< TUNER >

TU1	8-598-430-50	TUNER, FSS BTF-FA401
TU2	8-598-542-20	TUNER, FSS BTF-WA412

< VIBRATOR >

X1	1-577-110-11	VIBRATOR, CRYSTAL
X301	1-567-505-11	OSCILLATOR, CRYSTAL
X302	1-767-179-31	VIBRATOR, SERAMIC
X303	1-567-505-11	OSCILLATOR, CRYSTAL
X304	1-767-179-31	VIBRATOR, SERAMIC
X305	1-781-282-11	VIBRATOR, CERAMIC
X306	1-767-989-11	VIBRATOR, CERAMIC
X307	1-760-895-21	VIBRATOR, CERAMIC
X701	1-579-358-21	VIBLATOR, CRYSTAL

D

REF. NO.	PART NO.	DESCRIPTION			REMARK
*	A-1348-038-A	D BOARD, COMPLETE			
		**********			
	3-710-578-01	COVER, VOLUME, 6 MOLD			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	7-682-952-09	SCREW +PSW 3X16			
		< CAPACITOR >			
C8001	1-137-372-11	MYLAR	0.022UF	5%	50V
C8002	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C8003	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C8004	1-104-666-11	ELECT	220UF	20%	25V
C8005	1-126-942-61	ELECT	1000UF	20%	25V
C8006	1-126-942-61	ELECT	1000UF	20%	25V
C8007	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C8008	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C8009	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C8010	1-136-177-00	FILM	1UF	5%	50V
C8011	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C8012	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C8013	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C8014	1-104-665-11	ELECT	100UF	20%	25V
C8015	1-126-969-11	ELECT	220UF	20%	50V
C8016	1-104-665-11	ELECT	100UF	20%	25V
C8017	1-162-964-11	CERAMIC CHIP	0.001UF	10%	50V
C8018	1-126-964-11	ELECT	10UF	20%	50V
C8023	1-106-220-00	MYLAR	0.1UF	10%	100V
C8024	1-137-372-11	MYLAR	0.022UF	5%	50V
C8025	1-126-968-11	ELECT	100UF	20%	50V
C8026	1-126-968-11	ELECT	100UF	20%	50V
C8028	1-126-968-11	ELECT	100UF	20%	50V
C8029	1-126-968-11	ELECT	100UF	20%	50V
C8031	1-107-636-11	ELECT	10UF	20%	160V
C8032	1-126-968-11	ELECT	100UF	20%	50V
C8033	1-126-968-11	ELECT	100UF	20%	50V
C8036	1-126-968-11	ELECT	100UF	20%	50V
C8037	1-126-968-11	ELECT	100UF	20%	50V
C8040	1-115-349-51	CERAMIC	0.01UF		2KV
C8045	1-126-965-11	ELECT	22UF	20%	50V
C8046	1-126-965-11	ELECT	22UF	20%	50V
C8047	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C8048	1-126-965-11	ELECT	22UF	20%	50V
C8049	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C8050	1-126-965-11	ELECT	22UF	20%	50V
C8051	1-102-038-00	CERAMIC	0.001UF		500V
C8052	1-126-965-11	ELECT	22UF	20%	50V
C8053	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C8054	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C8055	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C8056	1-107-652-11	ELECT	10UF	20%	250V
C8057	1-126-959-11	ELECT	0.47UF	20%	50V
C8058	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C8059	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C8060	1-104-665-11	ELECT	100UF	20%	25V
C8061	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C8062	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C8063	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C8064	1-107-636-11	ELECT	10UF	20%	160V
C8065	1-106-383-00	MYLAR	0.047UF	10%	200V
C8066	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C8067	1-104-665-11	ELECT	100UF	20%	25V
C8068	1-102-038-00	CERAMIC	0.001UF		500V
C8069	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C8070	1-126-964-11	ELECT	10UF	20%	50V
C8071	1-126-964-11	ELECT	10UF	20%	50V
C8072	1-126-964-11	ELECT	10UF	20%	50V
C8073	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C8074	1-104-665-11	ELECT	100UF	20%	25V
C8075	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C8076	1-128-551-11	ELECT	22UF	20%	25V
C8077	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C8078	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
C8079	1-126-964-11	ELECT	10UF	20%	50V
C8080	1-126-964-11	ELECT	10UF	20%	50V
C8081	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
C8082	1-165-176-11	CERAMIC CHIP	0.047UF	10%	16V
C8083	1-130-495-00	MYLAR	0.1UF	5%	50V
C8084	1-130-992-11	FILM	0.022UF	5%	50V
C8085	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C8086	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C8087	1-126-960-11	ELECT	1UF	20%	50V
C8088	1-126-964-11	ELECT	10UF	20%	50V
C8089	1-107-444-11	CERAMIC	100PF	10%	2KV
C8090	1-126-960-11	ELECT	1UF	20%	50V
C8091	1-104-665-11	ELECT	100UF	20%	25V
C8092	1-117-640-11	FILM	6800PF	3%	1.2KV
C8093	1-107-648-91	ELECT	100UF	20%	160V
C8094	1-104-665-11	ELECT	100UF	20%	25V
C8095	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C8096	1-136-684-51	MYLAR	0.0022UF	10%	100V
C8097	1-162-131-11	CERAMIC	220PF	10%	2KV
C8098	1-162-131-11	CERAMIC	220PF	10%	2KV
C8099	1-115-416-11	CERAMIC CHIP	0.001UF	5%	25V
C8100	1-126-961-11	ELECT	2.2UF	20%	50V
C8102	1-102-038-00	CERAMIC	0.001UF		500V
C8103	1-126-964-11	ELECT	10UF	20%	50V
C8104	1-162-965-11	CERAMIC CHIP	0.0015UF	10%	50V
C8105	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C8106	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C8107	1-136-187-11	MYLAR	0.047UF	10%	250V
C8108	1-126-964-11	ELECT	10UF	20%	50V
C8109	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C8110	1-126-960-11	ELECT	1UF	20%	50V
C8111	1-126-960-11	ELECT	1UF	20%	50V
C8112	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C8113	1-130-495-00	MYLAR	0.1UF	5%	50V
C8114	1-125-473-11	ELECT(BLOCK)	1000UF	20%	160V
C8115	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C8116	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C8117	1-102-038-00	CERAMIC	0.001UF		500V
C8118	1-136-189-00	MYLAR	0.1UF	10%	250V
C8119	1-164-156-11	CERAMIC CHIP	0.1UF		25
C8120	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C8121	1-115-349-51	CERAMIC	0.01UF		2KV
C8122	1-126-934-11	ELECT	220UF	20%	16V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C8123	1-107-444-11	CERAMIC	100PF	10%	2KV
C8124	1-117-642-11	FILM	8200PF	3%	1.2KV
C8125	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C8126	1-106-357-00	MYLAR	0.0039UF	99%	200V
C8127	1-126-942-61	ELECT	1000UF	20%	25V
C8129	1-137-150-11	MYLAR	0.01UF	5%	50V
C8131	1-128-582-11	ELECT	10UF	20%	100V
C8132	1-126-942-61	ELECT	1000UF	20%	25V
C8133	1-107-649-11	ELECT	2.2UF	20%	250V
C8135	1-109-961-11	FILM	0.75UF	5%	250V
C8136	1-130-495-00	MYLAR	0.1UF	5%	50V
C8137	1-126-942-61	ELECT	1000UF	20%	25V
C8138	1-162-964-11	CERAMIC CHIP	0.001UF	10%	50V
C8139	1-126-964-11	ELECT	10UF	20%	50V
C8142	1-117-664-11	FILM	0.27UF	5%	250V
C8143	1-126-960-11	ELECT	1UF	20%	50V
C8148	1-104-665-11	ELECT	100UF	20%	25V
C8150	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C8153	1-126-960-11	ELECT	1UF	20%	50V
		< CONNECTOR >			
CN8002*	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P			
CN8003*	1-691-135-11	PIN, CONNECTOR (PC BOARD) 4P			
CN8004*	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P			
CN8005*	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P			
CN8006*	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P			
CN8007*	1-564-506-11	PLUG, CONNECTOR 3P			
CN8008*	1-564-506-11	PLUG, CONNECTOR 3P			
CN8009*	1-564-506-11	PLUG, CONNECTOR 3P			
CN8010*	1-564-507-11	PLUG, CONNECTOR 4P			
CN8011*	1-564-507-11	PLUG, CONNECTOR 4P			
CN8012*	1-564-507-11	PLUG, CONNECTOR 4P			
CN8013*	1-766-177-11	PIN, CONNECTOR (PC BOARD) 9P			
CN8015*	1-506-371-00	PIN, CONNECTOR 2P			
CN8016*	1-564-507-11	PLUG, CONNECTOR 4P			
CN8018*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P			
CN8019*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P			
CN8020*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P			
CN8021*	1-506-371-00	PIN, CONNECTOR 2P			
CN8022*	1-564-510-11	PLUG, CONNECTOR 7P			
CN8023*	1-564-507-11	PLUG, CONNECTOR 4P			
		< DIODE >			
D8001	8-719-109-98	RD5.6ESB2			
D8002	8-719-110-53	RD20ES-B2			
D8003	8-719-924-13	MTZJ-T-77-22B			
D8004	8-719-908-03	GP08D			
D8005	8-719-991-33	1SS133T-77			
D8006	8-719-991-33	1SS133T-77			
D8007	8-719-991-33	1SS133T-77			
D8008	8-719-991-33	1SS133T-77			
D8009	8-719-991-33	1SS133T-77			
D8010	8-719-991-33	1SS133T-77			
D8011	8-719-991-33	1SS133T-77			
D8012	8-719-991-33	1SS133T-77			

REF. NO.	PART NO.	DESCRIPTION	REMARK
D8013	8-719-921-88	RD5.1ESB2	
D8014	8-719-921-88	RD5.1ESB2	
D8015	8-719-991-33	1SS133T-77	
D8016	8-719-991-33	1SS133T-77	
D8019	8-719-991-33	1SS133T-77	
D8020	8-719-991-33	1SS133T-77	
D8021	8-719-061-21	FMQ-G5FMS	
D8022	8-719-991-33	1SS133T-77	
D8023	8-719-991-33	1SS133T-77	
D8024	8-719-921-88	RD15ES-B2	
D8025	8-719-991-33	1SS133T-77	
D8026	8-719-10*-89	RD5.6ESB2	
D8027	8-719-028-45	D2L20U	
D8028	8-719-921-88	RD15ES-B2	
D8029	8-719-028-45	D2L20U	
D8030	8-719-028-45	D2L20U	
D8031	8-719-921-88	RD18ES-B2	
D8032	8-719-302-43	EL1Z	
D8033	8-719-028-72	RGP02-17EL-6433	
D8034	6-500-004-01	DIODE ERD07-15L	
D8035	6-500-004-01	DIODE ERD07-15L	
D8036	8-719-921-88	RD15ES-B2	
D8037	8-719-028-45	D2L20U	
D8038	8-719-302-43	EL1Z	
D8039	8-719-028-72	RGP02-17EL-6433	
D8043	8-719-991-33	1SS133T-77	
D8045	8-719-908-03	GP08D	
D8046	8-719-991-33	1SS133T-77	
D8047	8-719-991-33	1SS133T-77	
		< FERRITE BEAD >	
FB8001	1-410-397-21	FERRITE 1.1UH	
FB8002	1-410-397-21	FERRITE 1.1UH	
FB8003	1-414-229-11	FERRITE 0UH	
FB8004	1-216-864-11	SHORT 0	
FB8005	1-469-869-21	FERRITE 0UH	
FB8006	1-469-869-21	FERRITE 0UH	
FB8008	1-410-396-41	FERRITE 0.45UH	
FB8009	1-410-396-41	FERRITE 0.45UH	
FB8010	1-410-396-41	FERRITE 0.45UH	
FB8011	1-410-396-41	FERRITE 0.45UH	
FB8014	1-469-869-21	FERRITE 0UH	
FB8015	1-469-869-21	FERRITE 0UH	
FB8016	1-469-869-21	FERRITE 0UH	
FB8017	1-469-869-21	FERRITE 0UH	
FB8018	1-469-869-21	FERRITE 0UH	
FB8019	1-410-397-21	FERRITE 1.1UH	
FB8020	1-414-229-11	FERRITE 0UH	
FB8021	1-410-397-21	FERRITE 1.1UH	
FB8022	1-410-396-41	FERRITE 0.45UH	
FB8023	1-410-396-41	FERRITE 0.45UH	
FB8024	1-469-869-21	FERRITE 0UH	
		< IC >	
IC8001	8-749-019-08	IC STK392-560	
IC8002	8-749-019-08	IC STK392-560	

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

D

REF. NO.	PART NO.	DESCRIPTION	REMARK
IC8003	8-759-593-33	LA78045	
☛ IC8004	8-759-077-91	NJM78L12A	
IC8005	8-759-585-82	BA9759F-E2	
IC8006	8-759-700-07	NJM2903M	
IC8007	8-759-700-07	NJM2903M	
IC8008	8-759-585-82	BA9759F-E2	
IC8009	8-759-803-42	LA6500-FA	
IC8012	8-759-701-01	NJM2904M	
		< COIL >	
L8001	1-412-533-21	INDUCTOR 47UH	
L8002	1-412-533-21	INDUCTOR 47UH	
L8003	1-412-525-31	INDUCTOR 10UH	
L8004	1-412-533-21	INDUCTOR 47UH	
L8005	1-412-533-21	INDUCTOR 47UH	
L8006	1-412-525-31	INDUCTOR 10UH	
L8007	1-412-533-21	INDUCTOR 47UH	
L8008	1-412-533-21	INDUCTOR 47UH	
L8009	1-412-525-31	INDUCTOR 10UH	
L8010	1-414-187-11	INDUCTOR 47UH	
L8011	1-412-525-31	INDUCTOR 10UH	
L8012	1-414-187-11	INDUCTOR 47UH	
L8013	1-414-856-11	INDUCTOR 10UH	
L8014	1-414-189-31	INDUCTOR 100UH	
L8015	1-414-189-31	INDUCTOR 100UH	
L8016	1-412-537-31	INDUCTOR 100UH	
L8017	1-414-856-11	INDUCTOR 10UH	
L8018	1-406-663-21	INDUCTOR 47UH	
L8019	1-419-352-11	COIL, HORIZONTAL LINEARITY	
L8020	1-412-525-31	INDUCTOR 10UH	
L8021	1-406-659-11	INDUCTOR 10UH	
L8022	1-412-552-11	INDUCTOR 2.2mmH	
L8023	1-414-856-11	INDUCTOR 10UH	
L8024	1-414-856-11	INDUCTOR 10UH	
L8025	1-414-856-11	INDUCTOR 10UH	
L8026	1-414-856-11	INDUCTOR 10UH	
		< NEON LAMP >	
NL8001	1-517-778-21	LAMP, NEON	
		< IC LINK >	
PS8001⚠	1-533-595-31	LINK, IC	
PS8002⚠	1-533-595-31	LINK, IC	
PS8003⚠	1-533-595-31	LINK, IC	
PS8004⚠	1-533-595-31	LINK, IC	
PS8005⚠	1-533-595-31	LINK, IC	
PS8006⚠	1-533-595-31	LINK, IC	
PS8007⚠	1-533-595-31	LINK, IC	
		< TRANSISTOR >	
Q8001	8-729-422-27	2SD601A-Q	
Q8002	8-729-046-80	2SC4634LS-CB11	
Q8003	8-729-026-49	2SA1037AK-T146-R	
Q8004	8-729-026-49	2SA1037AK-T146-R	
Q8005	8-729-026-49	2SA1037AK-T146-R	
Q8007	8-729-046-80	2SC4634LS-CB11	
Q8008	8-729-207-89	2SA1358-Y	
Q8009	8-729-207-82	2SC3421-Y	
Q8010	8-729-422-27	2SD601A-Q	
Q8011	8-729-026-49	2SA1037AK-T146-R	
Q8014	8-729-422-27	2SD601A-Q	
Q8015	8-729-422-27	2SD601A-Q	
Q8016	8-729-422-27	2SD601A-Q	
Q8019	8-729-026-49	2SA1037AK-T146-R	
Q8020	8-729-422-27	2SD601A-Q	
Q8021	8-729-422-27	2SD601A-Q	
Q8022	8-729-422-27	2SD601A-Q	
Q8023	8-729-048-47	2SC2688(5)-LK	
Q8024	8-729-056-50	TRANSISTOR 2SC5681-YB	
Q8027	8-729-050-13	2SJ585LS-CC11	
Q8028	8-729-422-27	2SD601A-Q	
Q8029	8-729-422-27	2SD601A-Q	
Q8030	8-729-026-49	2SA1037AK-T146-R	
Q8031	8-729-422-27	2SD601A-Q	
Q8032	8-729-422-27	2SD601A-Q	
Q8035	8-729-050-13	2SJ585LS-CC11	
Q8036	8-729-026-49	2SA1037AK-T146-R	
Q8037	8-729-422-27	2SD601A-Q	
Q8038	8-729-038-10	TRANSISTOR 1MB12-140-F153A	
Q8039	8-729-048-47	2SC2688(5)-LK	
Q8101	8-729-026-49	2SA1037AK-T146-R	
		< RESISTOR >	
R8001	1-216-825-11	RES-CHIP 2.2K 5% 1/16W	
R8002	1-216-809-11	RES-CHIP 100 5% 1/16W	
R8003	1-216-809-11	RES-CHIP 100 5% 1/16W	
R8004	1-216-809-11	RES-CHIP 100 5% 1/16W	
R8005	1-215-875-11	METAL OXIDE 10K 5% 1W	
R8007	1-216-809-11	RES-CHIP 100 5% 1/16W	
R8008	1-216-809-11	RES-CHIP 100 5% 1/16W	
R8009	1-216-809-11	RES-CHIP 100 5% 1/16W	
R8010	1-260-131-11	CARBON 470K 5% 1/2W	
R8011	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R8012	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R8013	1-218-710-11	METAL CHIP 5.6K 0.5% 1/16W	
R8014	1-218-709-11	METAL CHIP 5.1K 0.5% 1/16W	
R8015	1-216-837-11	RES-CHIP 22K 5% 1/16W	
R8016	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R8017	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R8018	1-216-821-11	RES-CHIP 1K 5% 1/16W	
R8019	1-218-712-11	METAL CHIP 6.8K 0.5% 1/16W	
R8020	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R8021	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R8022	1-216-839-11	RES-CHIP 33K 5% 1/16W	
R8023	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R8024	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R8025	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R8026	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R8029	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R8030	1-215-903-11	METAL OXIDE 68K 5% 2W	
R8031	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R8032	1-216-821-11	RES-CHIP 1K 5% 1/16W	
R8033	1-216-833-11	RES-CHIP 10K 5% 1/16W	

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R8034	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8035	1-218-694-11	METAL CHIP	1.2K	0.5%	1/16W
R8036	1-214-800-11	METAL	2.2	1%	1/2W
R8037	1-215-903-11	METAL OXIDE	68K	5%	2W
R8038	1-216-809-11	RES-CHIP	100	5%	1/16W
R8039	1-214-800-11	METAL	2.2	1%	1/2W
R8040	1-215-913-11	METAL OXIDE	220	5%	3W
R8041	1-218-709-11	METAL CHIP	5.1K	0.5%	1/16W
R8042	1-216-826-11	RES-CHIP	2.7K	5%	1/16W
R8043	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R8044	1-218-712-11	METAL CHIP	6.8K	0.5%	1/16W
R8045	1-214-808-11	METAL	4.7	1%	1/2W
R8046	1-214-808-11	METAL	4.7	1%	1/2W
R8047	1-215-857-71	METAL OXIDE	10	5%	1W
R8048	1-414-189-31	INDUCTOR	100UH		
R8049	1-414-189-31	INDUCTOR	100UH		
R8050	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8051	1-214-808-11	METAL	4.7	1%	1/2W
R8053	1-214-808-11	METAL	4.7	1%	1/2W
R8055	1-218-748-11	METAL CHIP	220K	0.5%	1/16W
R8056	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8057	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8058	1-216-809-11	RES-CHIP	100	5%	1/16W
R8059	1-214-808-11	METAL	4.7	1%	1/2W
R8060	1-214-808-11	METAL	4.7	1%	1/2W
R8061	1-216-390-11	METAL OXIDE	1.2	5%	3W
R8062	1-260-107-11	CARBON	4.7K	5%	1/2W
R8063	1-214-808-11	METAL	4.7	1%	1/2W
R8064	1-214-808-11	METAL	4.7	1%	1/2W
R8065	1-260-328-11	CARBON	1K	5%	1/2W
R8066	1-214-808-11	METAL	4.7	1%	1/2W
R8067	1-214-808-11	METAL	4.7	1%	1/2W
R8068	1-216-809-11	RES-CHIP	100	5%	1/16W
R8069	1-214-808-11	METAL	4.7	1%	1/2W
R8070	1-214-808-11	METAL	4.7	1%	1/2W
R8071	1-215-381-00	METAL	22	1%	1/4W
R8073	1-214-808-11	METAL	4.7	1%	1/2W
R8075	1-214-808-11	METAL	4.7	1%	1/2W
R8076	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8077	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8078	1-214-808-11	METAL	4.7	1%	1/2W
R8079	1-214-808-11	METAL	4.7	1%	1/2W
R8080	1-216-353-00	METAL OXIDE	2.2	5%	1W
R8081	1-214-808-11	METAL	4.7	1%	1/2W
R8082	1-214-808-11	METAL	4.7	1%	1/2W
R8083	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8084	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8085	1-214-808-11	METAL	4.7	1%	1/2W
R8086	1-214-808-11	METAL	4.7	1%	1/2W
R8087	1-249-385-11	CARBON	2.2	5%	1/4W
R8088	1-249-385-11	CARBON	2.2	5%	1/4W
R8089	1-214-808-11	METAL	4.7	1%	1/2W
R8090	1-214-808-11	METAL	4.7	1%	1/2W
R8091	1-214-808-11	METAL	4.7	1%	1/2W
R8092	1-214-808-11	METAL	4.7	1%	1/2W
R8093	1-214-808-11	METAL	4.7	1%	1/2W
R8094	1-214-808-11	METAL	4.7	1%	1/2W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R8095	1-216-801-11	RES-CHIP	22	5%	1/16W
R8096	1-216-801-11	RES-CHIP	22	5%	1/16W
R8097	1-214-808-11	METAL	4.7	1%	1/2W
R8098	1-214-808-11	METAL	4.7	1%	1/2W
R8099	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R8100	1-216-475-11	METAL OXIDE	120	5%	3W
R8101	1-216-475-11	METAL OXIDE	120	5%	3W
R8102	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8103	1-216-816-11	RES-CHIP	390	5%	1/16W
R8104	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R8105	1-214-808-11	METAL	4.7	1%	1/2W
R8106	1-214-808-11	METAL	4.7	1%	1/2W
R8107	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8108	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8109	1-216-814-11	RES-CHIP	270	5%	1/16W
R8110	1-249-427-11	CARBON	6.8K	5%	1/4W
R8111	1-216-819-11	RES-CHIP	680	5%	1/16W
R8112	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R8113	1-216-475-11	METAL OXIDE	120	5%	3W
R8114	1-216-475-11	METAL OXIDE	120	5%	3W
R8115	1-216-475-11	METAL OXIDE	120	5%	3W
R8116	1-216-475-11	METAL OXIDE	120	5%	3W
R8117	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8118	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8119	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8120	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8121	1-216-809-11	RES-CHIP	100	5%	1/16W
R8123	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8124	1-249-377-11	CARBON	0.47	5%	1/4W
R8125	1-216-816-11	RES-CHIP	390	5%	1/16W
R8126	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R8128	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8129	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R8130	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R8131	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8132	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8133	1-216-487-11	METAL OXIDE	12K	5%	3W
R8134	1-215-873-00	METAL OXIDE	4.7K	5%	1W
R8135	1-216-487-11	METAL OXIDE	12K	5%	3W
R8136	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8137	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R8138	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8139	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R8140	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8141	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R8142	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8143	1-218-734-11	METAL CHIP	56K	0.5%	1/16W
R8144	1-216-809-11	RES-CHIP	100	5%	1/16W
R8145	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R8146	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R8147	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R8148	1-216-845-11	RES-CHIP	100K	5%	1/16W
R8149	1-215-905-11	METAL OXIDE	10	5%	3W
R8150	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R8151	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R8152	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R8153	1-218-692-11	METAL CHIP	1K	0.5%	1/16W

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- The components identified by ⋈ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

D **G**

REF. NO.	PART NO.	DESCRIPTION			REMARK
R8154	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R8155	1-215-469-00	METAL	100K	1%	1/4W
R8156	1-215-469-00	METAL	100K	1%	1/4W
R8157	1-218-738-11	METAL CHIP	82K	0.5%	1/16W
R8159	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8160	1-249-393-11	CARBON	10	5%	1/4W
R8161	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8163	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8164	1-218-734-11	METAL CHIP	56K	0.5%	1/16W
R8165	1-249-425-11	CARBON	4.7K	5%	1/4W
R8167	1-414-189-31	INDUCTOR	100UH		
R8166	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R8168	1-216-809-11	RES-CHIP	100	5%	1/16W
R8169	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8170	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R8171	1-216-809-11	RES-CHIP	100	5%	1/16W
R8172	1-249-405-11	CARBON	100	5%	1/4W
R8173	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8174	1-249-425-11	CARBON	4.7K	5%	1/4W
R8176	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R8178	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8179	1-414-189-31	INDUCTOR	100UH		
R8180	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8181	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8182	1-218-748-11	RES-CHIP	220K	5%	1/16W
R8183	1-218-748-11	RES-CHIP	220K	5%	1/16W
R8184	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8187	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8189	1-249-377-11	CARBON	0.47	5%	1/4W
R8190	1-215-431-00	METAL	2.7K	1%	1/4W
R8191	1-215-429-00	METAL	2.2K	1%	1/4W
R8192	1-215-449-00	METAL	15K	1%	1/4W
R8193	1-215-449-00	METAL	15K	1%	1/4W
R8194	1-215-449-00	METAL	15K	1%	1/4W
R8195	1-215-449-00	METAL	15K	1%	1/4W
R8196	1-249-425-11	CARBON	4.7K	5%	1/4W
R8197	1-216-809-11	RES-CHIP	100	5%	1/16W
R8198	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8201	1-249-397-11	CARBON	22	5%	1/4W
R8202	1-260-092-11	CARBON	270	5%	1/2W
R8203	1-249-377-11	CARBON	0.47	5%	1/4W
R8205	1-249-377-11	CARBON	0.47	5%	1/4W
R8206	1-249-377-11	CARBON	0.47	5%	1/4W
R8208	1-260-288-11	CARBON	0.47	5%	1/2W
R8209	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8210	1-216-809-11	RES-CHIP	100	5%	1/16W
R8211	1-215-906-11	METAL OXIDE	15	5%	3W
R8212	1-215-907-11	METAL OXIDE	22	5%	3W
R8213	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8216	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8217	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8218	1-260-123-11	CARBON	100K	5%	1/2W
R8219	1-249-377-11	CARBON	0.47	5%	1/4W
R8220	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8223	1-218-748-11	METAL CHIP	220K	0.5%	1/16W
R8224	1-260-127-11	CARBON	220K	5%	1/2W
R8225	1-260-292-11	CARBON	1	5%	1/2W
R8228	1-260-314-11	CARBON	68	5%	1/2W
R8230	1-218-751-11	METAL CHIP	300K	0.5%	1/16W

< TRANSFORMER >

T8001	1-435-142-11	TRANSFORMER, FERRITE (DFT)	
T8002	1-437-400-11	TRANSFORMER, FERRITE (HDT)	
T8003	1-437-401-11	TRANSFORMER, FERRITE (HOT)	
T8004 ⚠	1-437-399-11	TRANSFORMER, FERRITE (LOT)	
T8005 ⚠	1-453-285-21	FBT ASSY, NX-4006//X4P4	

< THERMISTOR >

TH8001	1-800-193-00	THERMISTOR

< VARIABLE RESISTOR >

⋈ VR8001⚠	1-225-628-9	1RES, VAR, ADJ,CERME 5K
⋈ VR8002⚠	1-225-632-91	RES, VAR, ADJ, CERMET 100K

****

* A-1316-566-A G BOARD, COMPLETE
****

	1-533-223-11	HOLDER, FUSE
*	4-374-846-01	COVER, CAPACITOR, CAP TYPE
	4-382-854-11	SCREW (M3X10), P, SW (+)

< CAPACITOR >

C5001	1-164-645-11	CERAMIC	1000PF	10%	500V
C5002	1-164-645-11	CERAMIC	1000PF	10%	500V
C5006	1-104-665-11	ELECT	100UF	20%	25V
C5007	1-164-645-11	CERAMIC	1000PF	10%	500V
C5008	1-164-645-11	CERAMIC	1000PF	10%	500V
C5009	1-126-953-11	ELECT	2200UF	20%	35V
C5010	1-126-953-11	ELECT	2200UF	20%	35V
C5011	1-164-645-11	CERAMIC	1000PF	10%	500V
C5012	1-164-645-11	CERAMIC	1000PF	10%	500V
C5015	1-115-758-11	ELECT	470UF	20%	16V
C5016	1-126-942-61	ELECT	1000UF	20%	25V
C5017	1-126-942-61	ELECT	1000UF	20%	25V
C5018	1-126-952-11	ELECT	1000UF	20%	35V
C5019	1-126-952-11	ELECT	1000UF	20%	35V
C5020	1-110-626-11	ELECT	330UF	20%	160V
C5021	1-115-771-51	ELECT	0.0047F	20%	16V
C5022	1-126-947-11	ELECT	47UF	20%	25V
C5024	1-126-947-11	ELECT	47UF	20%	25V
C5025	1-126-947-11	ELECT	47UF	20%	25V
C5026	1-126-947-11	ELECT	47UF	20%	25V
C5027	1-126-951-11	ELECT	470UF	20%	35V
C5028	1-126-951-11	ELECT	470UF	20%	35V
C5029	1-107-639-11	ELECT	47UF	20%	160V
C5030	1-126-947-11	ELECT	47UF	20%	25V
C5031	1-126-768-11	ELECT	2200UF	20%	16V
C5038	1-126-947-11	ELECT	47UF	20%	25V
C5039	1-126-947-11	ELECT	47UF	20%	25V
C5040	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
C5041	1-126-767-11	ELECT	1000UF	20%	16V
C5042	1-126-963-11	ELECT	4.7UF	20%	50V
C5043	1-126-935-11	ELECT	470UF	20%	16V

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C5047	1-162-970-11	CERAMIC CHIP	0.01UF	10%	16V
C5049	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
C5050	1-128-554-11	ELECT	330UF	20%	63V
C5051	1-126-961-11	ELECT	2.2UF	20%	50V
C5053	1-126-967-11	ELECT	47UF	20%	50V
C5054	1-126-955-11	ELECT	4700UF	20%	35V
C5055	1-126-933-11	ELECT	100UF	20%	16V
C6001	1-126-967-11	ELECT	47UF	20%	50V
C6002	1-104-666-11	ELECT	220UF	20%	25V
C6004	1-126-967-11	ELECT	47UF	20%	50V
C6008	1-117-228-11	MYLAR	2.2UF	10%	450V
C6012 ⚠	1-119-888-51	CERAMIC	2200PF	20%	250V
C6013 ⚠	1-119-888-51	CERAMIC	2200PF	20%	250V
C6014 ⚠	1-104-708-11	MYLAR	0.47UF	20%	250V
C6015	1-161-964-91	CERAMIC	0.0047UF	250V	
C6016	1-161-964-91	CERAMIC	0.0047UF	250V	
C6017	1-162-964-11	CERAMIC CHIP	0.001UF	10%	50V
C6018	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C6019	1-126-968-11	ELECT	100UF	20%	50V
C6020	1-126-963-11	ELECT	4.7UF	20%	50V
C6021	1-126-964-11	ELECT	10UF	20%	50V
C6022	1-161-964-91	CERAMIC	0.0047UF	250V	
C6023	1-161-964-91	CERAMIC	0.0047UF	250V	
C6025	1-136-479-11	FILM	0.001UF	2%	50V
C6029	1-136-165-00	FILM	0.1UF	5%	50V
C6030	1-126-947-11	ELECT	47UF	20%	25V
C6031	1-137-750-11	ELECT	1500UF	20%	250V
C6032	1-137-750-11	ELECT	1500UF	20%	250V
C6041	1-125-969-91	CERAMIC	680PF	10%	1KV
C6042	1-125-969-91	CERAMIC	680PF	10%	1KV
C6043 ⚠	1-104-706-11	MYLAR	0.22UF	20%	250V
C6046	1-126-968-11	ELECT	100UF	20%	50V
C6047	1-135-998-21	FILM	56000PF	3%	800V

< CONNECTOR >

CN5001*	1-564-508-11	PLUG, CONNECTOR 5P
CN5002*	1-564-507-11	PLUG, CONNECTOR 4P
CN5003*	1-564-510-11	PLUG, CONNECTOR 7P
CN5004*	1-766-177-11	PIN, CONNECTOR (PC BOARD) 9P
CN5005	1-695-915-11	TAB (CONTACT)
CN5006	1-695-915-11	TAB (CONTACT)
CN5007	1-695-915-11	TAB (CONTACT)
CN6005	1-580-843-11	PIN, CONNECTOR (POWER)

< DIODE >

D5001	8-719-083-69	DIODE UDZSTE-1724B
D5002	8-719-060-89	D4SBS6-F
D5003	8-719-060-89	D4SBS6-F
D5004	8-719-083-45	DIODE 31DF4N-FC5
D5005	8-719-083-45	DIODE 31DF4N-FC5
D5006	8-719-052-37	F10P04Q
D5007	8-719-404-50	MA111-TX
D5008	8-719-028-45	D2L20U
D5009	8-719-028-45	D2L20U
D5010	8-719-200-31	21DQ05
D5011	8-719-404-50	MA111-TX
D5012	8-719-083-66	DIODE UDZSTE-1718B
D5013	8-719-069-56	UDZSTE-176.2B
D5014	8-719-404-50	MA111-TX
D5015	8-719-404-50	MA111-TX
D5016	8-719-083-44	DIODE FSQ05A04
D5017	8-719-073-25	S1VBA20
D5018	8-719-056-84	UDZ-TE-17-7.5B
D5019	8-719-404-50	MA111-TX
D5020	8-719-404-50	MA111-TX
D5021	8-719-404-50	MA111-TX
D5022	8-719-404-50	MA111-TX
D5023	8-719-404-50	MA111-TX
D5024	8-719-404-50	MA111-TX
D5025	8-719-404-50	MA111-TX
D5026	8-719-404-50	MA111-TX
D5031	8-719-404-50	MA111-TX
D6001	8-719-404-50	MA111-TX
D6002	8-719-948-45	ERA22-08
D6003	8-719-069-87	DTZ10B
D6004	8-719-404-50	MA111-TX
D6005	8-719-404-50	MA111-TX
D6006	8-719-063-70	D1NL20U
D6007	8-719-022-XX	D6SB60L
D6009	8-719-083-60	UDZSTE-174.7B
D6011	8-719-404-50	MA111-TX
D6012	8-719-979-64	UF4005PKG23
D6019	8-719-083-60	UDZSTE-174.7B
D6023	8-719-068-00	ERC04-06SE
D6024	8-719-068-00	ERC04-06SE
D6030	8-719-063-70	D1NL20U

< FUSE >

F6001 ⚠	1-576-193-11	FUSE

< FERRITE BEAD >

FB5001	1-410-396-41	FERRITE	0.45UH
FB5002	1-410-396-41	FERRITE	0.45UH
FB5003	1-410-396-41	FERRITE	0.45UH
FB5004	1-410-396-41	INDUCTOR	0.45UH
FB5005	1-410-396-41	FERRITE	0.45UH
FB5006	1-410-396-41	FERRITE	0.45UH
FB6001	1-410-396-41	FERRITE	0.45UH
FB6004	1-469-869-21	FERRITE	0UH
FB6005	1-469-869-21	FERRITE	0UH
FB6006	1-216-864-11	SHORT	0
FB6007	1-216-864-11	SHORT	0
FB6013	1-410-397-21	FERRITE	1.1UH
FB6014	1-410-397-21	FERRITE	1.1UH
FB6015	1-410-397-21	FERRITE	1.1UH
FB6016	1-410-397-21	FERRITE	1.1UH

< IC >

IC501	8-749-012-13	DM-58
IC5002	8-759-103-93	UPC393C
IC5003	8-759-701-84	NJM7905FA
IC5004	8-759-640-19	PQ1CG2032FZ
IC5005	8-759-198-31	UPC1093J-1-T

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Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION			REMARK
IC5006	8-759-450-47	BA05T			
IC6003	8-759-670-30	MCZ3001D			
		< JUMPER RESISTOR >			
JR5002	1-216-864-11	SHORT	0		
JR5003	1-216-864-11	SHORT	0		
JR5004	1-216-864-11	SHORT	0		
		< COIL >			
L5001	1-412-523-41	INDUCTOR	6.8UH		
L5002	1-412-523-41	INDUCTOR	6.8UH		
L5003	1-412-529-11	INDUCTOR	22UH		
L5004	1-412-531-31	INDUCTOR	33UH		
L5005	1-412-527-11	INDUCTOR	15UH		
L5006	1-412-533-21	INDUCTOR	47UH		
L5007	1-412-533-21	INDUCTOR	47UH		
L5008	1-412-529-11	INDUCTOR	22UH		
L5009	1-412-529-11	INDUCTOR	22UH		
L5012	1-406-663-21	INDUCTOR	47UH		
L5013	1-412-525-31	INDUCTOR	10UH		
L5014	1-406-663-21	INDUCTOR	47UH		
L5015	1-424-862-11	INDUCTOR	33UH		
L5016	1-406-663-21	INDUCTOR	47UH		
L5017	1-412-537-31	INDUCTOR	100UH		
L6001 ⚠	1-437-479-11	TRANSFORMER, LINE FILTER			
L6002 ⚠	1-437-479-11	TRANSFORMER, LINE FILTER			
L6003	1-424-862-11	INDUCTOR	33UH		
		< PHOTO COUPLER >			
PH6001	8-749-924-35	ON3171-R			
PH6002⚠	8-749-924-35	ON3171-R			
		< IC LINK >			
PS5001⚠	1-533-597-31	LINK, IC			
PS5002⚠	1-533-597-31	LINK, IC			
		< TRANSISTOR >			
Q5001	8-729-050-50	TRANSISTOR 2SD1782K-T146-R			
Q5002	8-729-422-27	2SD601A-Q			
Q5003	8-729-026-49	2SA1037AK-T146-R			
Q5004	8-729-422-27	2SD601A-Q			
Q5005	8-729-027-23	DTA114EKA-T146			
Q5006	8-729-901-87	2SC2411K-CQ			
Q5007	8-729-026-49	2SA1037AK-T146-R			
Q6005	8-729-052-32	IRFIB7N50A			
Q6006	8-729-052-32	IRFIB7N50A			
		< RESISTOR >			
R5005	1-216-831-11	RES-CHIP	6.8K	5%	1/16W
R5006	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5007	1-249-377-11	CARBON	0.47	5%	1/4W
R5010	1-247-903-00	CARBON	1M	5%	1/4W
R5011	1-216-818-11	RES-CHIP	560	5%	1/16W
R5012	1-216-361-00	METAL OXIDE	0.22	5%	2W
R5013	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5014	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R5015	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R5016	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5017	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R5018	1-216-821-11	RES-CHIP	1K	5%	1/16W
R5019	1-216-857-11	RES-CHIP	1M	5%	1/16W
R5020	1-216-821-11	RES-CHIP	1K	5%	1/16W
R5021	1-216-821-11	RES-CHIP	1K	5%	1/16W
R5022	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R5023	1-218-750-11	METAL CHIP	270K	0.5%	1/16W
R5024	1-218-682-11	METAL CHIP	390	0.5%	1/16W
R5025	1-218-697-11	METAL CHIP	1.6K	0.5%	1/16W
R5026	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5027	1-216-821-11	RES-CHIP	1K	5%	1/16W
R5028	1-216-821-11	RES-CHIP	1K	5%	1/16W
R5029	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5030	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5032	1-249-415-11	CARBON	680	5%	1/4W
R5034	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5035	1-216-819-11	RES-CHIP	680	5%	1/16W
R5036	1-216-819-11	RES-CHIP	680	5%	1/16W
R5037	1-216-821-11	RES-CHIP	1K	5%	1/16W
R5038	1-216-821-11	RES-CHIP	1K	5%	1/16W
R5039	1-216-864-11	SHORT	0		
R5040	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5041	1-215-866-11	METAL OXIDE	330	5%	1W
R5042	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5043	1-216-821-11	RES-CHIP	1K	5%	1/16W
R5044	1-216-821-11	RES-CHIP	1K	5%	1/16W
R5045	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R5047	1-216-833-11	RES-CHIP	10K	5%	1/16W
R6002	1-240-251-	CMT-MELF	6.8	5%	10W
R6003	1-260-328-11	CARBON	1K	5%	1/2W
R6004	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R6006	1-216-430-11	METAL OXIDE	390	5%	1W
R6007	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R6008	1-216-845-11	RES-CHIP	100K	5%	1/16W
R6015	1-219-776-11	CARBON	2.2M	10%	1/2W
R6036	1-218-715-11	METAL CHIP	9.1K	0.5%	1/16W
R6037	1-215-481-00	METAL	330K	1%	1/4W
R6038	1-215-481-00	METAL	330K	1%	1/4W
R6039	1-216-851-11	RES-CHIP	330K	5%	1/16W
R6040	1-215-481-00	METAL	330K	1%	1/4W
R6041	1-218-668-11	METAL CHIP	100	0.5%	1/16W
R6042	1-218-719-11	METAL CHIP	13K	0.5%	1/16W
R6045	1-218-675-11	METAL CHIP	200	0.5%	1/16W
R6046	1-216-813-11	RES-CHIP	220	5%	1/16W
R6047	1-216-813-11	RES-CHIP	220	5%	1/16W
R6050	1-249-417-11	CARBON	1K	5%	1/4W
R6054	1-249-393-11	CARBON	10	5%	1/4W
R6056	1-260-131-11	CARBON	470K	5%	1/2W
R6057	1-260-131-11	CARBON	470K	5%	1/2W
R6058	1-249-393-11	CARBON	10	5%	1/4W
R6062	1-216-833-11	RES-CHIP	10K	5%	1/16W
R6063	1-216-833-11	RES-CHIP	10K	5%	1/16W
R6064	1-202-933-61	FUSIBLE	0.1	10%	1/2W
R6076	1-243-979-71	METAL OXIDE	0.1	5%	2W
R6080	1-243-979-71	METAL OXIDE	0.1	5%	2W

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G H4 S H2

REF. NO.	PART NO.	DESCRIPTION			REMARK
R6081	1-249-393-11	CARBON	10	5%	1/4W
		< RELAY >			
RY6002⚠	1-755-395-11	RELAY (AC POWER)			
RY6003⚠	1-755-395-11	RELAY (AC POWER)			
		< TRANSFORMER >			
T6001 ⚠	1-437-436-11	CONVERTER TRANSFORMER (PIT)			
T6004 ⚠	1-435-675-11	TRANSFORMER, STANDBY			
		< POSISTOR >			
TH6002	1-804-475-21	POSISTOR			
		< VARISTOR >			
VD6001	1-801-073-31	VARISTOR TNR14V471K660			

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* A-1372-934-A		H4 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C9401	1-107-826-11	CERAMIC CHIP	0.1UF	10%	16V
		< CONNECTOR >			
CN9401*	1-564-518-11	PLUG, CONNECTOR 3P			
		< DIODE >			
D9401	8-719-921-8838		RD5.6ESB2		
D9402	8-719-921-8838		RD5.6ESB2		
		< IC >			
IC9401	8-719-066-43	GP1U28Y			
		< RESISTOR >			
R9401	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9402	1-216-809-11	RES-CHIP	100	5%	1/16W

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* A-1391-148-A		S BOARD, COMPLETE			
		**********			
		< CONNECTOR >			
CN3001*	1-564-506-11	PLUG, CONNECTOR 3P			
		< DIODE >			
D3001	8-719-109-89	RD5.6ESB2			
		< SOLAR BATTERY >			
S3002	1-756-063-21	BATTERY, SOLAR			

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* A-1372-932-A		H2 BOARD, COMPLETE			
		**********			
		< CONNECTOR >			
CN9201*	1-564-520-11	PLUG, CONNECTOR 5P			
CN9202	1-564-521-11	PLUG, CONNECTOR 6P			
		< RESISTOR >			
R9201	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R9202	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R9203	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R9204	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R9205	1-218-688-11	METAL CHIP	680	0.5%	1/16W
R9206	1-218-688-11	METAL CHIP	680	0.5%	1/16W
R9207	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R9208	1-218-696-11	METAL CHIP	1.5K	0.5%	1/16W
R9209	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R9210	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W
R9211	1-218-712-11	METAL CHIP	6.8K	0.5%	1/16W
		< SWITCH >			
S9201	1-572-198-11	SWITCH, KEYBOARD			
S9202	1-572-198-11	SWITCH, KEYBOARD			
S9203	1-572-198-11	SWITCH, KEYBOARD			
S9204	1-572-198-11	SWITCH, KEYBOARD			
S9205	1-572-198-11	SWITCH, KEYBOARD			
S9206	1-572-198-11	SWITCH, KEYBOARD			
S9207	1-572-198-11	SWITCH, KEYBOARD			
S9208	1-572-198-11	SWITCH, KEYBOARD			
S9209	1-572-198-11	SWITCH, KEYBOARD			
S9210	1-572-198-11	SWITCH, KEYBOARD			
S9211	1-572-198-11	SWITCH, KEYBOARD			
S9212	1-572-198-11	SWITCH, KEYBOARD			

****

* A-1377-001-A		H1 BOARD, COMPLETE			
		**********			
		< CONNECTOR >			
CN9101*	1-564-508-11	PLUG, CONNECTOR 5P			
		< DIODE >			
D9101	8-719-053-43	SLR-325VCT31			
D9102	8-719-053-43	SLR-325VCT31			
		< RESISTOR >			
R9103	1-216-813-11	RES-CHIP	220	5%	1/16W
R9104	1-216-813-11	RES-CHIP	220	5%	1/16W
		< SWITCH >			
S9101	1-571-532-21	SWITCH, TACTIL			

****

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

H1 **H3**

REF. NO.	PART NO.	DESCRIPTION			REMARK
	* A-1372-933-A	H3 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C9301	1-126-964-11	ELECT	10UF	20%	50V
C9302	1-126-964-11	ELECT	10UF	20%	50V
C9303	1-126-959-11	ELECT	0.47UF	20%	50V
C9304	1-126-959-11	ELECT	0.47UF	20%	50V
C9305	1-162-970-11	CERAMIC CHIP	0.01UF	10%	25V
		< CONNECTOR >			
CN9301	* 1-564-526-11	PLUG, CONNECTOR 11P			
		< DIODE >			
D9301	8-719-110-53	RD10ESB2			
D9302	8-719-110-53	RD10ESB2			
D9303	8-719-110-53	RD10ESB2			
D9304	8-719-110-53	RD10ESB2			
D9305	8-719-110-53	RD10ESB2			
D9306	8-719-110-53	RD10ESB2			
		< JACK >			
J9301	1-565-929-11	TERMINAL BLOCK, S 3P			
		< RESISTOR >			
R9301	1-216-821-11	RES-CHIP	1K	5%	1/16W
R9302	1-216-853-11	RES-CHIP	470K	5%	1/16W
R9303	1-216-853-11	RES-CHIP	470K	5%	1/16W
R9304	1-218-285-11	RES-CHIP	75	5%	1/16W
R9305	1-218-285-11	RES-CHIP	75	5%	1/16W
R9306	1-218-285-11	RES-CHIP	75	5%	1/16W

****

MISCELLANEOUS
****

⚠ A-1501-975-A COUPLER (R) ASSY, CRT (53HS20,53HS30)
⚠ A-1501-976-A COUPLER (G) ASSY, CRT
⚠ A-1501-977-A COUPLER (B) ASSY, CRT (53HS20,53HS30)

⚠ A-1501-978-A COUPLER (R) ASSY CRT (61HS20,61HS30)
⚠ A-1501-979-A COUPLER (B) ASSY CRT (61HS20,61HS30)

⚠ A-1501-980-A COUPLER (R) ASSY, CRT (43HT20)
⚠ A-1501-981-A COUPLER (B) ASSY, CRT (43HT20)
⚠ 1-223-925-11 RESISTOR ASSY (FOCUS PACK)
⚠ 1-451-535-11 COIL ASSY, VM
⚠ 1-451-537-11 DEFLECTION YOKE

1-500-021-11 CLAMP, SLEEVE FERRITE
1-529-403-11 SPEAKER (6.6CM)
1-543-653-11 CORE ASSY, BEAD (DIVISION TYPE)
1-544-849-11 SPEAKER (13CM) (EXCEPT 43HT20)
1-544-893-11 SPEAKER (10CM) (43HT20)

* 1-556-945-21 CABLE, P-P
* 1-557-056-31 CABLE, P-P
1-771-787-11 SWITCH, RF ANTENNA
⚠ 1-790-130-11 CORD, AC POWER (WITH CONNECTOR)
⚠ 8-598-955-31 BLOCK ASSY, HV HVB-1031

****

ACCESSORIES & PACKING MATERIALS
****

* 4-041-423-01 SHEET, PROTECTION (43HT20)
* 4-041-426-01 BAG, PROTECTION (53HS20,53HS30)
* 4-042-463-01 SHEET, PROTECTION (EXCEPT 43HT20)
* 4-049-155-01 BAG, PROTECTION (43HT20)
* 4-069-575-02 TRAY (53HS20,53HS30)

* 4-069-584-01 TRAY (61HS20,61HS30)
* 4-069-585-02 CUSHION (UPPER) (ASSY) (61HS20,61HS30)
* 4-076-420-01 BAG, PROTECTION (61HS20,61HS30)
* 4-080-860-11 CUSHION UPPER (ASSY) (53HS20,53HS30)
* 4-080-866-01 CUSHION UPPER (ASSY) (43HT20)

4-081-143-11 MANUAL, INSTRUCTION
4-081-143-21 MANUAL, INSTRUCTION
4-081-143-31 MANUAL, INSTRUCTION
* 4-081-544-01 CUSHION, LOWER (ASSY) (53HS20,53HS30)
* 4-081-591-01 TRAY (43HT20)

* 4-081-619-01 CUSHION, LOWER ASSY (43HT20)
* 4-081-694-01 CUSHION, LOWER ASSY (61HS20)
* 4-083-615-01 INDIVIDUAL CARTON (53HS20,53HS30)
* 4-083-685-01 INDIVIDUAL CARTON (61HS20,61HS30)
* 4-083-695-01 CARTON, INDIVIDUAL (43HT20)

****

REMOTE COMMANDER
****

1-476-853-11 REMOTE COMMANDER (RM-Y908)

©2001.6

SONY

4-081-143-**11**(1)

Projection TV

Operating Instructions

KP-43HT20
KP-53HS20
KP-53HS30
KP-61HS20
KP-61HS30

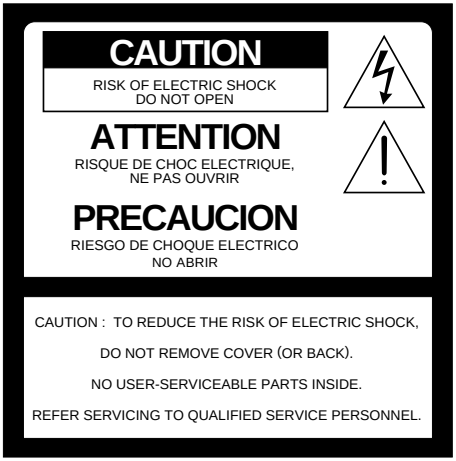
Hi-Scan 1080i

DRC-MF
Digital Reality Creation

© 2001 Sony Corporation

WARNING

To prevent fire or shock hazard, do not expose the projection TV to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

To prevent electric shock, do not use this polarized AC plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

CAUTION

When using TV games, computers, and similar products with your projection TV, or viewing a TV station whose logo always stays on the screen, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern such as a station logo is left on the screen for long periods of time, especially at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. These types of imprints are not covered by your warranty.

Note on Caption Vision

This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

Note on convergence adjustment

Before you use your projection TV, make sure to adjust convergence. For details, see “Adjusting the Convergence Automatically – FLASH FOCUS™ –” on page 33.

Note to CATV system installer

This reminder is provided to call the CATV system installer’s attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Use of this television receiver for other than private viewing of programs broadcast on UHF, VHF, transmitted by cable companies or satellite for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

NOTIFICATION

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antennas.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

> You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

This document is for the remote control RM-Y908.

MODELS: KP-43HT20, KP-53HS20, KP-53HS30, KP-61HS20, KP-61HS30

Please keep this notice with the instruction manual.

Safety

- Operate the projection TV only on 120 V AC.
- The plug is designed, for safety purposes, to fit into the wall outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- If any liquid or solid object should fall inside the cabinet, unplug the projection TV immediately and have it checked by qualified service personnel before operating it further.
- If you will not be using the projection TV for several days, disconnect the power by pulling the plug itself. Never pull on the cord.

  For details concerning safety precautions, see “Important Safeguards” on page 4.

Installing

- To prevent internal heat buildup, do not block the ventilation openings.
- Do not install the projection TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- Avoid operating the projection TV at temperature below 5°C (41°F).
- If the projection TV is transported directly from a cold to a warm location, or if the room temperature changes suddenly, the picture may be blurred or show poor color. In this case, please wait a few hours to let the moisture evaporate before turning on the projection TV.
- To obtain the best picture, do not expose the screen to direct illumination or direct sunlight. It is recommended to use spot lighting directed down from the ceiling or to cover the windows that face the screen with opaque drapery. It is desirable to install the projection TV in a room where the floor and walls are not of a reflective material.

As an ENERGY STAR® Partner, Sony Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

ENERGY STAR® is a U.S. registered mark.

TruSurround™ with SRS ● TruSurround is a trademark of SRS Labs, Inc. SRS and the SRS symbol are registered trademarks of SRS Labs, Inc. in the United States and selected foreign countries. SRS and TruSurround are incorporated under license from SRS Labs, Inc. and is protected under United States Patent Nos. 4,748,669 and 4, 841, 572 with numerous additional issued and pending foreign patents. Purchase of this product does not convey the right to sell recordings made with the TruSurround technology.

BBE and BBE Symbol are trademarks of BBE Sound, Inc. and are licensed by BBE Sound, Inc. under U.S. Patent No. 4,638,258 and 4,482,866.

ATTENTION

Pour prévenir les chocs électriques, ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames peuvent tre inserées à fond sans en laisser aucune partie à decouvert.

Owner’s Record

The model and serial numbers are located at the rear of the projection TV, below the Sony logo, on the sticker, and also on the TV box (white label). Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No._____

Serial No._____

Important Safeguards

For your protection, please read these instructions completely, and keep this manual for future reference.

Carefully observe and comply with all warnings, cautions and instructions placed on the set or described in the operating instructions or service manual.

WARNING

To guard against injury, the following basic safety precautions should be observed in the installation, use and servicing of the set.

Use

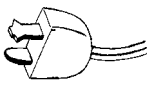
Power Sources

This set should be operated only from the type of power source indicated on the serial/model plate. If you are not sure of the type of electrical power supplied to your home, consult your dealer or local power company. For those sets designed to operate from battery power, refer to the operating instructions.

Grounding or Polarization

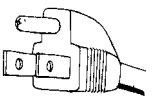
This set is equipped with a polarized AC power cord plug (a plug having one blade wider than the other), or with a three-wire grounding type plug (a plug having a third pin for grounding). Follow the instructions below:

For the set with a polarized AC power cord plug



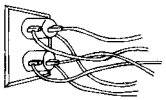
This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the polarized plug by forcing it in.

Alternate Warning for the set with a three-wire grounding type AC plug



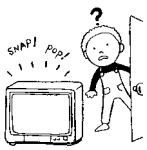
This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the grounding plug.

Overloading



Do not overload wall outlets, extension cords or convenience receptacles beyond their capacity, since this can result in fire or electric shock.

Always turn the set off when it is not being used. When the set is left unattended and unused for long periods of time, unplug it from the wall outlet as a precaution against the possibility of an internal malfunction that could create a fire hazard.

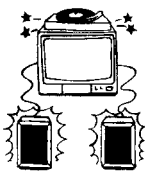


If a snapping or popping sound from a TV set is continuous or frequent while the TV is operating, unplug the TV and consult your dealer or service technician. It is normal for some TV sets to make occasional snapping or popping sounds, particularly when being turned on or off.

Object and Liquid Entry

Never push objects of any kind into the set through the cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the set.

Attachments



Do not use attachments not recommended by the manufacturer, as they may cause hazards.

Cleaning

Clean the cabinet of the projection TV with a dry soft cloth. To remove dust from the screen, wipe it gently with a soft cloth. Stubborn stains may be removed with a cloth slightly dampened with solution of mild soap and warm water. Never use strong solvents such as thinner or benzine for cleaning.

If the picture becomes dark after using the projection TV for a long period of time, it may be necessary to clean the inside of the projection TV. Consult qualified service personnel.

Water and Moisture

Do not use power-line operated sets near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.

Accessories

Do not place the set on an unstable cart, stand, table or shelf. The set may fall, causing serious injury to a child or an adult and serious damage to the set. Use only a cart or stand recommended by the manufacturer for the specific model of projection TV. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

Ventilation

The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of the set, and to protect it from overheating, these slots and openings must never be blocked or covered.

- ❑ Never cover the slots and openings with a cloth or other materials.

- ❑ Never block the slots and openings by placing the set on a bed, sofa, rug or other similar surface.

- ❑ Never place the set in a confined space, such as a bookcase or built-in cabinet, unless proper ventilation is provided.

- ❑ Do not place the set near or over a radiator or heat register, or where it is exposed to direct sunlight.

Power-Cord Protection

Do not allow anything to rest on or roll over the power cord, and do not place the set where the power cord is subject to wear or abuse.

Antennas

Outdoor Antenna Grounding

If an outdoor antenna is installed, follow the precautions below. An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits.

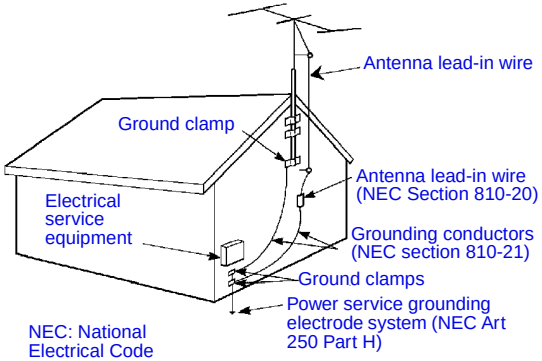
WHEN INSTALLING AN OUTDOOR ANTENNA SYSTEM, EXTREME CARE SHOULD BE TAKEN TO KEEP FROM CONTACTING SUCH POWER LINES OR CIRCUITS AS CONTACT WITH THEM IS ALMOST INVARIABLY FATAL.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.

Section 810 of the National Electrical Code (NEC) in USA and Section 54 of the Canadian Electrical Code in Canada provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Antenna Grounding According to the NEC

Refer to section 54-300 of Canadian Electrical Code for Antenna Grounding.


Antenna lead-in wire
Ground clamp
Antenna lead-in wire (NEC Section 810-20)
Electrical service equipment
Grounding conductors (NEC section 810-21)
Ground clamps
Power service grounding electrode system (NEC Art 250 Part H)
NEC: National Electrical Code

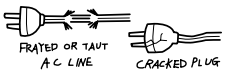
Lightning

For added protection for this television receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the receiver due to lightning and power-line surges.

Service

Damage Requiring Service

Unplug the set from the wall outlet and refer servicing to qualified service personnel under the following conditions:



- ❑ When the power cord or plug is damaged or frayed.
- ❑ If liquid has been spilled into the set.
- ❑ If the set has been exposed to rain or water.
- ❑ If the set has been subject to excessive shock by being dropped, or the cabinet has been damaged.

- ❑ If the set does not operate normally when following the operating instructions. Adjust only those controls that are specified in the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the set to normal operation.
- ❑ When the set exhibits a distinct change in performance, it indicates a need for service.

Servicing

Do not attempt to service the set yourself since opening the cabinet may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Replacement Parts

When replacement parts are required, be sure the service technician certifies in writing that he has used replacement parts specified by the manufacturer that have the same characteristics as the original parts.

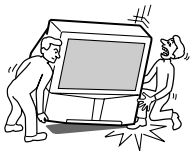
Unauthorized substitutions may result in fire, electric shock or other hazards.

Safety Check

Upon completion of any service or repairs to the set, ask the service technician to perform routine safety checks (as specified by the manufacturer) to determine that the set is in safe operating condition, and to so certify. When the set reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the set.

For Safety

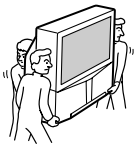
Be careful when moving the projection TV



When you place the projection TV in position, be careful not to drop it on your foot or fingers.

Watch your footing while installing the projection TV.

Carry the projection TV in the specified manner



If you carry the projection TV in a manner other than the specified manner and without the specified number of persons, it may drop and a serious injury may be caused. Be sure to follow the instructions mentioned below.

- ❑ Carry the projection TV with the specified number of persons. (see page 10)
- ❑ Do not carry the projection TV holding the speaker grill.
- ❑ Hold the projection TV tightly when carrying it.

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Introducing the Sony Projection TV

Presenting the Sony Projection TV

Thank you for purchasing the Sony Projection TV.
This manual is for models KP-43HT20, KP-53HS20, KP-53HS30, KP-61HS20 and KP-61HS30.
Model KP-53HS30 is used for illustration purposes.

Features

Some of the features that you will enjoy with your new projection TV include:

- **Hi Scan 1080™**: Enables you to receive the 1080i, 720p, 480p and 480i digital TV formats. By using the VIDEO 5/6 IN jacks, you can connect a DTV (digital television) receiver to view DTV programs.
- **DRC™ Multi-Function:** Unlike conventional line doublers, the DRC feature doubles vertical and horizontal lines, resulting in four times the density for quality sources such as DVD, Satellite and Digital camcorder.
- **CineMotion™:** Using the 2-3 Pull-Down technology, the CineMotion feature allows you to obtain a smooth picture movement when playing back movies or other video sources on film.
- **Twin View™:** Using Multi-Image Driver (MID-X), Twin View allows you to watch two programs side by side with the ability to zoom in one picture and listen to selected window. You can watch pictures from two different sources (1080i, 720p, 480p or 480i) simultaneously.
- **16:9 Enhancement:** Vertical Compression technology that maximizes picture resolution on “anamorphic” or “enhanced for wide screen” sources, including selected DVDs.
- **Steady Sound™:** Equalizes volume levels so there is consistent output between programs and commercials.
- **Parental Control:** V-Chip technology allows parents to block unsuitable programming for younger viewers.
- **Component Video Inputs:** Offers the best video quality for DVD (480p, 480i) and Digital Set-top box (1080i, 720p, 480p, 480i) connections.
- **S-VIDEO Inputs:** Provides a high-quality image for connected equipment.
- **Favorite Channel Preview:** Preview up to eight favorite channels without leaving the current channel.

- **Channel Index**: Allows you to view and choose from twelve programs.
- **Flash Focus™**: Allows you to adjust convergence automatically.

Using this manual

We recommend that you carefully review the contents of the following four sections in the order provided to ensure that you fully understand the operation of your new projection TV.

1 Installing and Connecting the Projection TV

This section guides you through your initial setup. It shows you how to install your projection TV, to connect your new components and to connect the antenna and cable.

2 Using the Features

This section shows you how to begin using your new projection TV. It shows you how to use your remote control functions.

3 Using the menus

This section teaches you how to access on-screen menus and adjust your projection TV settings.

Instructions in this manual are written for the remote control. Similar controls may be found on the projection TV console.

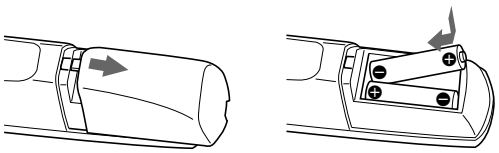
Installing and Connecting the Projection TV

Contents

Your box contains your new projection TV, a remote control and two AA batteries. No peripheral cables are included. If you intend to add additional equipment to your projection TV, please check the hookup instructions for your desired setup before you begin. You may need to purchase cables and/or splitters to complete the hookup properly.

Inserting Batteries to the Remote Control

Insert two size AA (R6) batteries (supplied) by matching the + and – on the batteries to the diagram inside the battery compartment.



- Remove the batteries to avoid damage from possible battery leakage whenever you anticipate that the remote control will not be used for an extended period.
- Handle the remote control with care. Avoid dropping it, getting it wet, or placing it in direct sunlight, near a heater, or where the humidity is high.
- Your remote control can be programmed to operate most video equipment. (See “Programming the Remote Control” on page 65.)

Carrying Your Projection TV

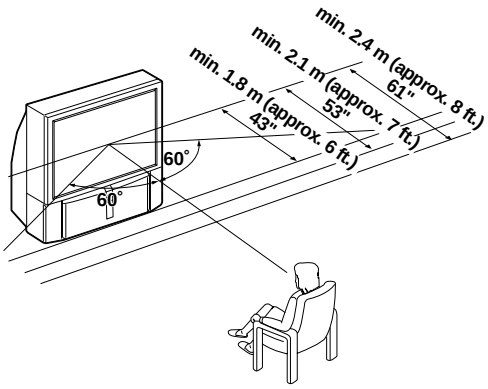
Carrying the projection TV requires three or more people.

The projection TV has been equipped with casters for easy movement on a hard surface. (for KP-53HS20, KP-53HS30, KP-61HS20 and KP-61HS30 only)

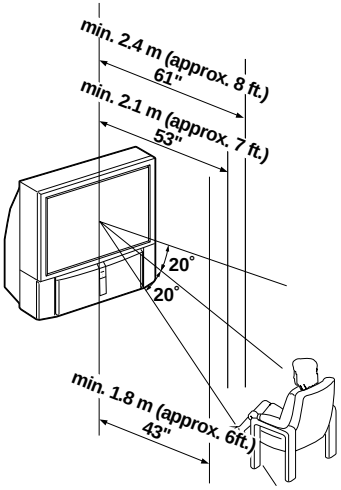
Please move your projection TV using the casters.

Installing the Projection TV

Recommended viewing area (Horizontal)



Recommended viewing area (Vertical)

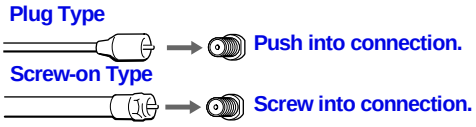


Connector Types

You may find it necessary to use some of the following connector types during set up.

Coaxial cable

Standard TV cable and antenna cable



S Video cable

High quality video cable for enhanced picture quality

Audio/Video cable

Video - Yellow
Audio (Left) - White
Audio (Right) - Red

Some DVD Players are equipped with the following three video connectors.

Y - Green
P_B (C_B, C_b or B–Y) - Blue
P_R (C_R, C_r or R–Y) - Red

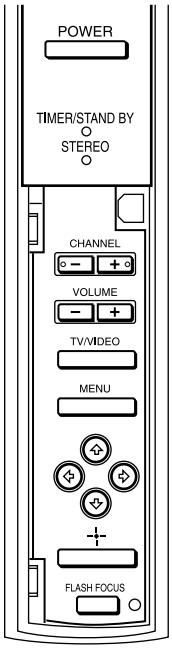
CONTROL S cable

CONTROL S connections are exclusive to Sony products and allow greater control of all Sony equipment.

Projection TV Controls and Connectors

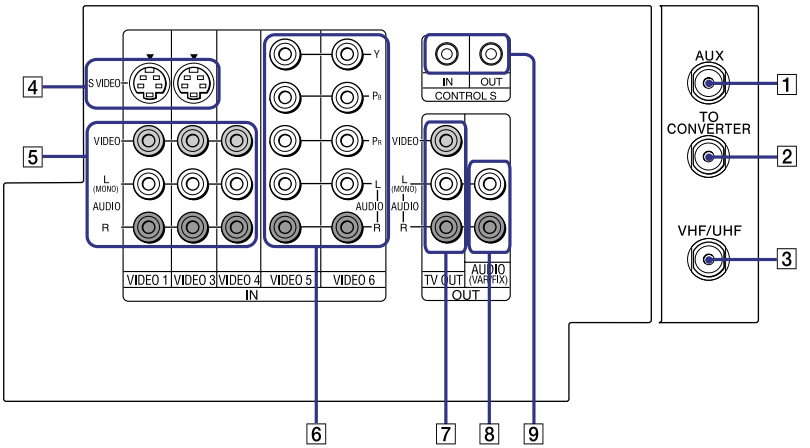
Front Panel Menu Controls

The front panel menu controls allow access to the on-screen menus without the use of a remote control. Pressing MENU brings up the on-screen menus. The arrow buttons move the on-screen cursor in the menus and the Select button (⊹) selects the menu item.

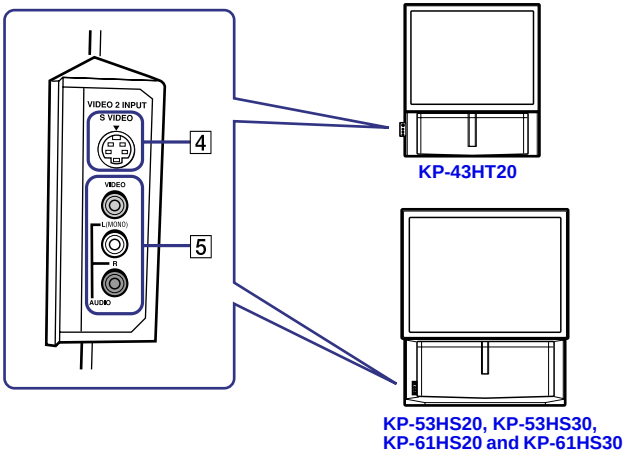


Projection TV Rear and Front/Side Panel Connectors

Rear of projection TV



Front or side of projection TV



KP-43HT20

KP-53HS20, KP-53HS30, KP-61HS20 and KP-61HS30

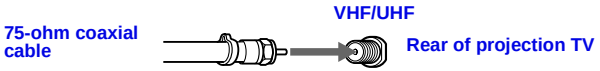
Connection	Description
1 AUX	Allows you to view local and cable channels if your cable provider does not feature local channels. You can switch between local and cable channels easily by pressing ANT on the remote control. Devices connected to the AUX input cannot be viewed in Twin View.
2 TO CONVERTER	This is a VHF/UHF OUT jack that lets you set up your projection TV to switch between scrambled channels (through a cable box) and normal cable channels (CATV). Use this jack instead of a splitter to get better picture quality when switching between scrambled and unscrambled cable channels.
3 VHF/UHF	Connects to your VHF/UHF antenna or cable.
4 S VIDEO (Rear and front/ side)	Connects to the S VIDEO OUT jack of your VCR or other S VIDEO-equipped video component. Provides better picture quality than the VHF/UHF jacks or the Video IN jack.
5 VIDEO (L/R)/AUDIO (Rear and front/ side)	Connects to the audio and video OUT jacks on your VCR or other video component. A fourth video input (VIDEO 2) is located on the side panel (for KP-43HT20) or the front panel (for KP-53HS20, KP-53HS30, KP-61HS20 and KP-61HS30) of the projection TV.
6 Y/P_B/P_R (L/R)/AUDIO	Connects to your DVD player's or Digital Set-top box's component video (Y, P_B, P_R) and audio (L/R) jacks.
7 TV OUT	Connects to an AV receiver for greater control of all audio and video equipment. (see page 30) For detailed information about connection, refer to the operating manual supplied with the AV receiver.
8 AUDIO OUT (VAR/FIX) L (MONO)/R	Connects to the left and right audio inputs of your audio or video component.
9 CONTROL S IN/OUT	To control other Sony equipment with the projection TV's remote control, connect the CONTROL S IN jack of the equipment to the CONTROL S OUT jack on the projection TV with the CONTROL S cable. To control the projection TV with a remote control for another Sony product, connect the CONTROL S OUT jack of the equipment to the CONTROL S IN jack on the projection TV with the CONTROL S cable.

Basic Connections (Connecting Cable TV or Antenna)

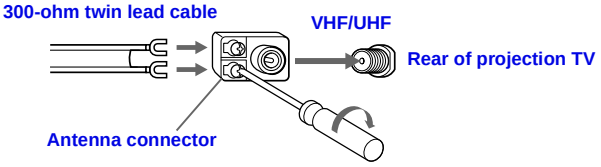
Connecting Directly to Cable or an Antenna

The connection you choose depends on the cable found in your home. Newer homes are equipped with standard coaxial cable (see A); older homes probably have 300-ohm twin lead cable (see B); other homes may contain both (see C).

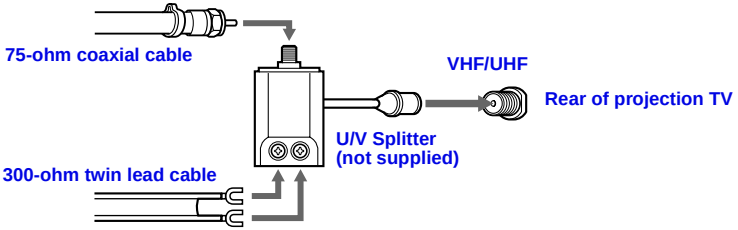
A VHF Only or VHF/UHF or Cable



B VHF Only or UHF Only or VHF/UHF

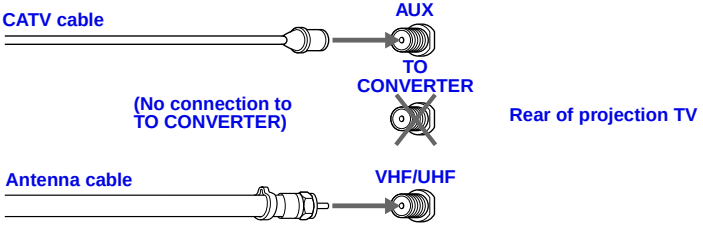


C VHF and UHF



Cable and Antenna

If your cable provider does not feature local channels, you may find this set up convenient.



Select CABLE or antenna (ANT) mode by pressing ANT on the remote control.

To receive channels with an antenna, you need to turn your Cable to OFF (see page 52) and perform the Auto Program function (see page 53).

Cable Box Connections

Cable Box and Cable

This is the preferred basic cable TV hookup to use if:

- Your cable TV company scrambles some channels, but not all of them (pay channels vs. regular cable channels) and you need to use a cable box, and
- You want to enjoy the Twin View feature.

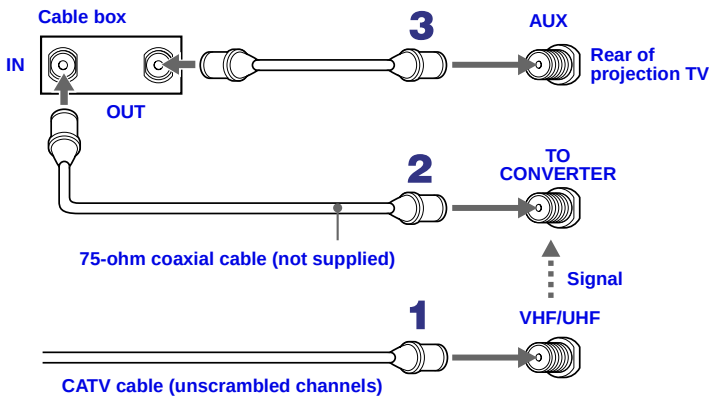
With this setup you can:

- Use the projection TV remote control to change channels using your cable box when the signal is scrambled.
- Use the projection TV remote control to change channels using your projection TV when the signal is not scrambled. (Your projection TV's tuner provides a better signal than the cable box.)
- Use the Twin View feature. (When all channels are routed through your cable box, only one channel is sent to the projection TV, so you can not use the Twin View or Channel Index features for your cable box.)

1 Connect the Cable TV cable to the projection TV's VHF/UHF jack.

2 Using a coaxial cable, connect the projection TV's TO CONVERTER jack to the cable box's IN jack. The projection TV's internal converter allows you to switch between unscrambled signals coming straight into the projection TV and scrambled signals coming in through the cable box, eliminating the need for an external splitter.

3 Using a coaxial cable, connect the cable box's OUT jack to the projection TV's AUX jack.



Pressing ANT on the remote control switches between the channels coming in through the cable box (scrambled) and those coming directly to the TV (unscrambled).

(Continued)

Cable Box Only

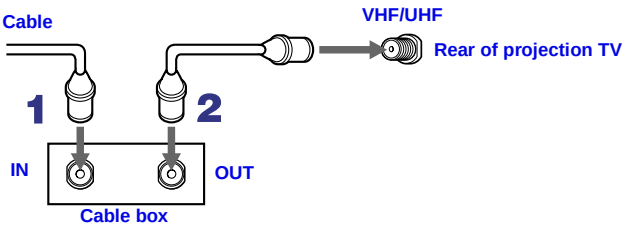
Use this hookup if:

- You subscribe to a cable TV system that uses scrambled or encoded signals requiring a cable box to view all channels, and
- You do not intend to hook up any other audio or video equipment to your projection TV.

When all channels are routed through your cable box, only one unscrambled channel is sent to the projection TV, so you cannot use the Twin View feature. If some channels are scrambled, but others are not, consider using the hookup on page 17 instead.

1 Connect the coaxial connector from your cable service to the cable box's IN jack.

2 Using a coaxial cable, connect the cable box's OUT jack to the TV's VHF/UHF jack.



Also, set Cable to ON in the Channel menu. (see page 52)

Setting the Channel Fix feature in the Channel menu (see "Using the Channel Menu" on page 52) ensures that you do not accidentally switch the channels using your projection TV.

- If you will be controlling all channel selection through your cable box, consider using the Channel Fix feature to set your projection TV to channel 3 or 4. (see page 53)
- Your Sony remote control can be programmed to operate your cable box. (see "Programming the Remote Control" on page 65)
- To change channels using the cable box, set your projection TV to channel 3 or 4 depending on the cable box channel output.

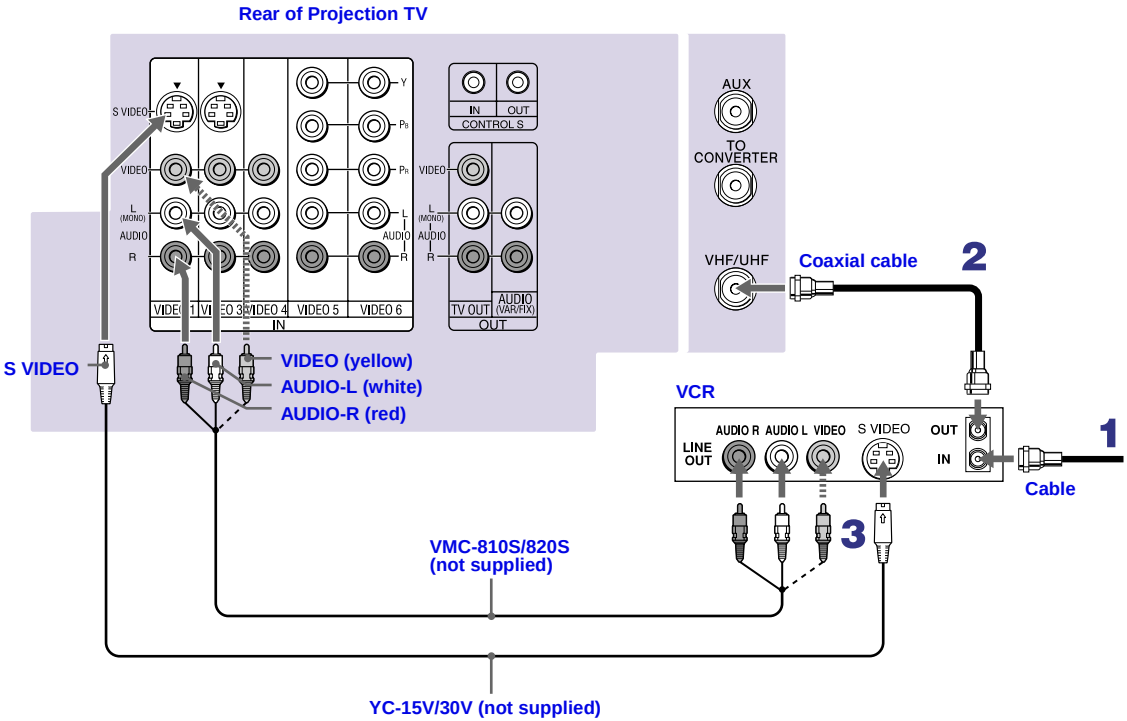
Connecting a VCR and Cable

Use this hookup if:

- ❑ You have cable TV that does not require a cable box.

Disconnect all power sources before making any connections.

1. Connect the cable TV cable to the VCR's IN jack.
2. Using a coaxial cable, connect the VCR's OUT jack to the projection TV's VHF/UHF jack.
3. Using AUDIO and S VIDEO cables, connect the VCR's Audio and Video OUT jacks to the projection TV's AUDIO and S VIDEO IN jacks.



If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

Connecting a VCR and Cable Box

Use this hookup if:

- Your cable TV company scrambles some channels, but not all of them (pay channels vs. regular cable channels) and you need to use a cable box, and
- You want to enjoy the Twin View feature.

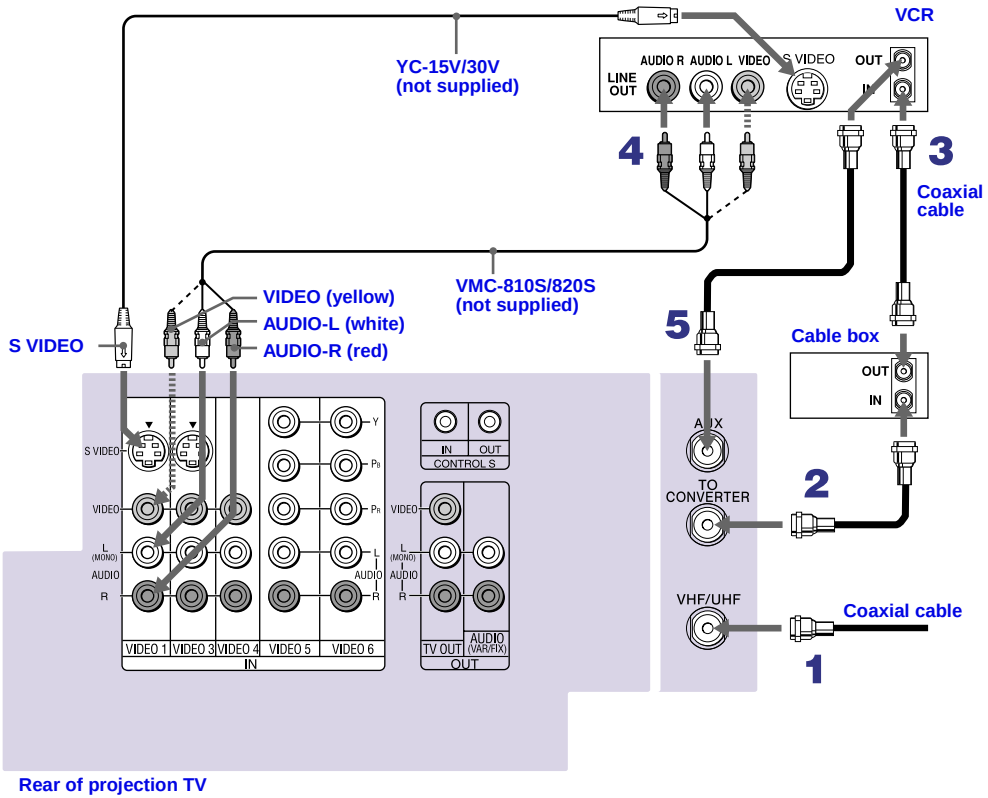
With this setup you can:

- Use the projection TV remote control to change channels using your cable box when the signal is scrambled.
- Use the projection TV remote control to change channels using your projection TV when the signal is not scrambled. Your projection TV's tuner provides a better signal than the cable box.
- Use the Twin View feature. (When all channels are routed through your cable box, only one signal is sent to the projection TV, so you cannot use the Twin View feature.)

Disconnect all power sources before making any connections.

1. Connect the Cable TV cable to the projection TV's VHF/UHF jack.
2. Using a coaxial cable, connect the TV's TO CONVERTER jack to the cable box's IN jack. The projection TV's internal converter allows you to switch between unscrambled signals coming straight into the projection TV and scrambled signals coming in through the cable box, eliminating the need for an external splitter.
3. Using a coaxial cable, connect the cable box's OUT jack to the VCR's IN jack.
4. Using AUDIO and S VIDEO cables, connect the VCR's AUDIO and S VIDEO OUT jacks to the projection TV's AUDIO and S VIDEO IN jacks.
5. Using a coaxial cable, connect the VCR's OUT jack to the projection TV's AUX jack.

To view scrambled channels, set your projection TV to AUX 3 or 4 (depending on your cable box output). Change channels using your cable box.



Rear of projection TV

- If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.
- You will not be able to change channels on the VCR. Set your projection TV and VCR to channel 3 or 4, depending on your cable box channel output.
- Pressing ANT on the remote control switches between the channels coming in through the cable box (scrambled) and those coming directly to the projection TV (unscrambled).

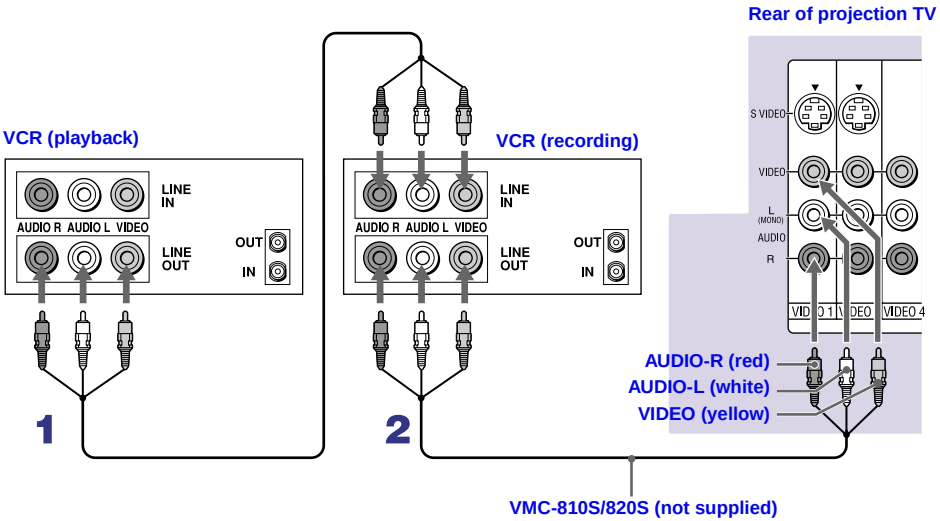
Connecting Two VCRs for Tape Editing

Connecting two VCRs together, then into the projection TV, allows you to switch between the two to be sure that what you are playing on one is recording on the other.

Disconnect all power sources before making any connections.

1 Using AUDIO and VIDEO cables, connect the playback VCR's Audio and Video OUT jacks to the recording VCR's Audio and Video IN jacks.

2 Using AUDIO and VIDEO cables, connect the recording VCR's AUDIO and Video OUT jacks to the projection TV's AUDIO and VIDEO IN jacks.



- To perform tape editing, set the projection TV to the video input intended for playback by pressing TV/VIDEO on the remote control.
- You may need to change the video input on your VCR. Consult your VCR's operating manual for instructions.
- If your VCRs have an S VIDEO jack: For best picture quality, use an S VIDEO connection instead of the yellow video cable on your combined A/V cable.
  Using an S VIDEO cable, connect the playback VCR's S VIDEO OUT jack to the recording VCR's S VIDEO IN jack. S VIDEO does not provide audio, so audio cables must still be connected to provide sound.
- You cannot record signals from equipment connected to the Y, P_B, P_R input.

Connecting a Satellite Receiver

Disconnect all power sources before making any connections.

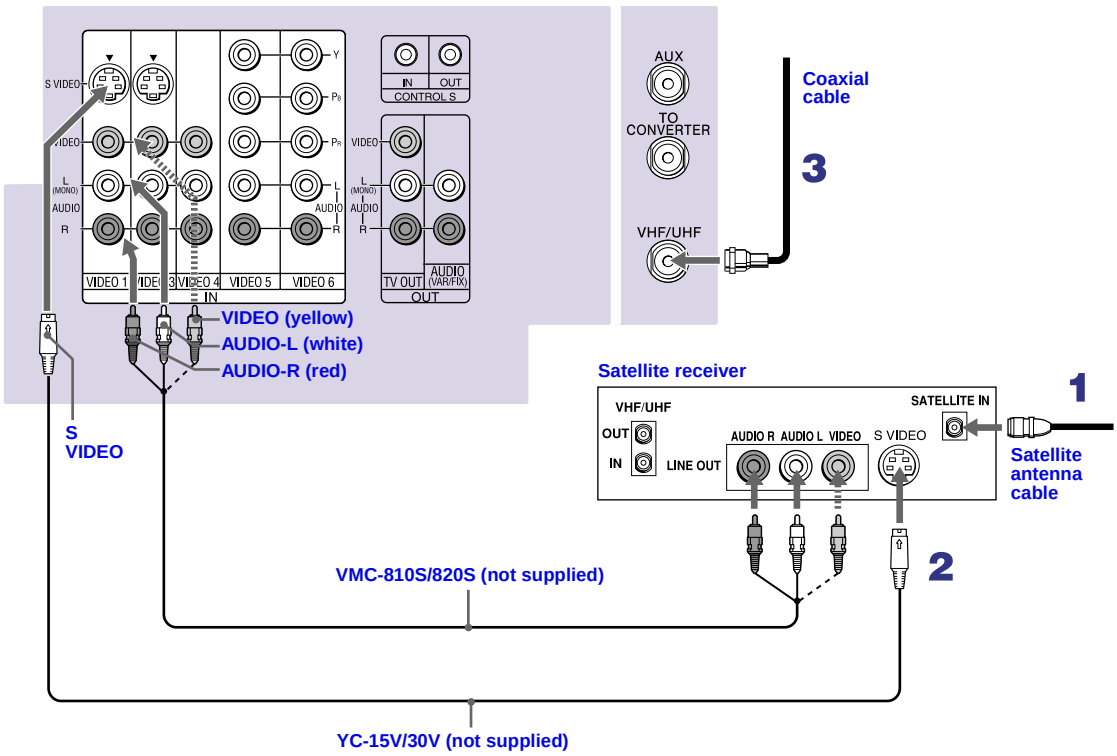
1 Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack.

2 Using AUDIO and S VIDEO cables, connect the satellite receiver's AUDIO and S VIDEO OUT jacks to the projection TV's AUDIO and S VIDEO IN jacks.

3 Connect a coaxial cable from your cable or antenna to the projection TV's VHF/UHF jack.

If your satellite receiver is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

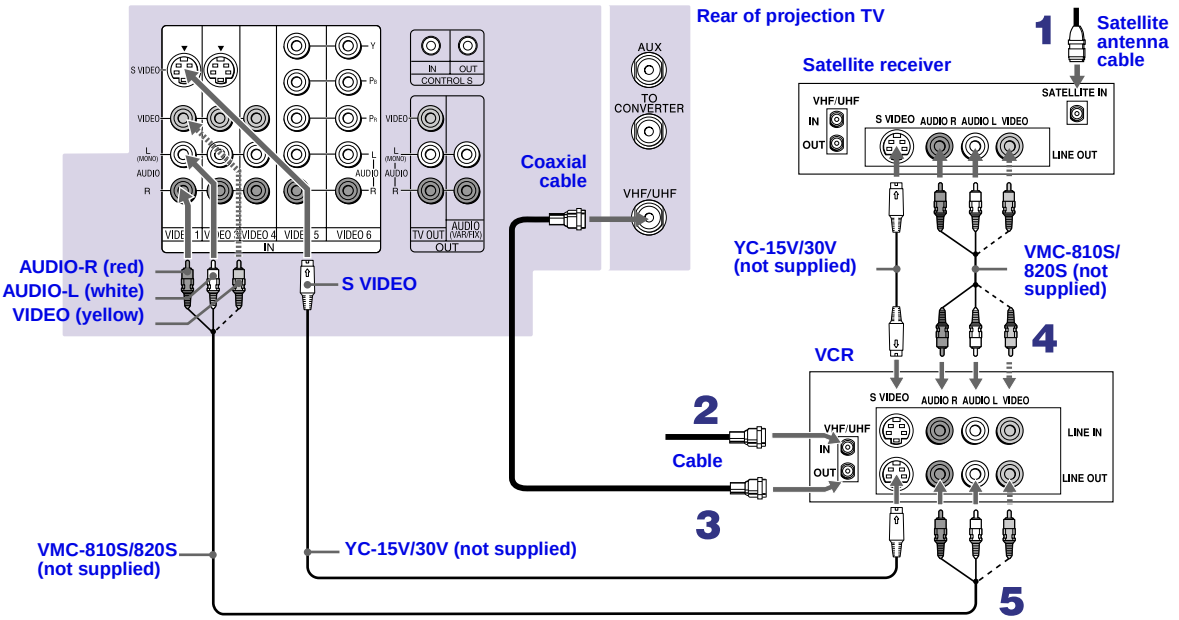
Rear of projection TV



Connecting a Satellite Receiver with a VCR

Disconnect all power sources before making any connections.

1. Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack.
2. Connect the CATV cable to the VCR's VHF/UHF IN jack.
3. Using a coaxial cable, connect the VCR's OUT jack to the projection TV's VHF/UHF jack.
4. Using AUDIO and S VIDEO cables, connect the satellite receiver's AUDIO and S VIDEO OUT jacks to the VCR's AUDIO and S VIDEO IN jacks.
5. Using AUDIO and S VIDEO cables, connect the VCR's AUDIO and S VIDEO OUT jacks to the TV's AUDIO and S VIDEO IN jacks.



Be sure your VCR's video input is set correctly. Consult your VCR's operating manual for instructions.

Use TV/VIDEO to select
- VIDEO 1 to watch satellite TV or the VCR. (Your VCR must be turned on)
- VHF/UHF to watch cable TV.

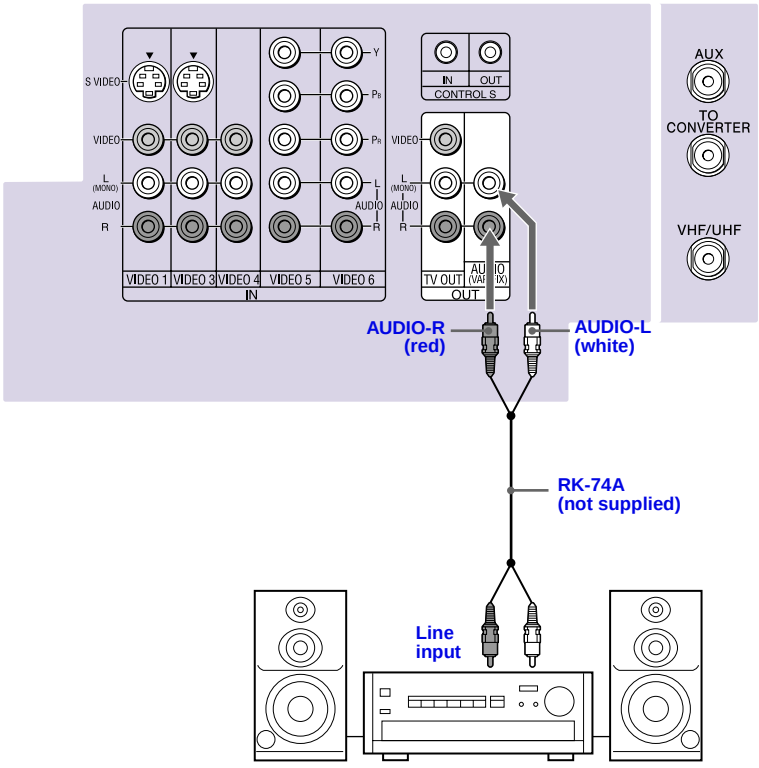
If your VCR or satellite receiver is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

Connecting an Audio Receiver

Disconnect all power sources before making any connections.

Using audio cables, connect the projection TV's AUDIO OUT (VAR/FIX) jacks to the audio receiver's audio LINE IN jacks.

Rear of projection TV



Connecting a DVD Player with Component Video Connectors

This is the preferred hookup to use if:

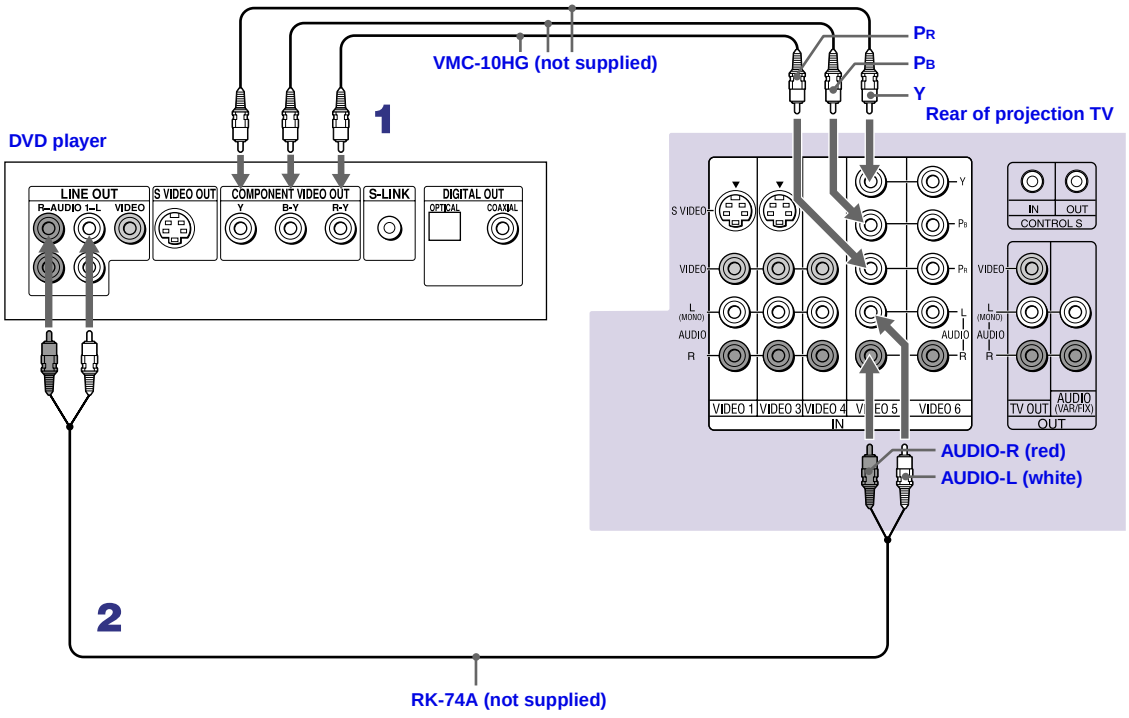
- ❑ Your DVD player has component (Y, PB, PR) jacks.

Disconnect all power sources before making any connections.

1 Using three separate component video cables, connect the DVD player's Y, PB and PR jacks to the Y, PB and PR jacks on the projection TV. Use the VIDEO IN 5 or 6 connections.

> The Y, PB and PR jacks on your DVD player are sometimes labeled Y, CB and CR, or Y, B-Y and R-Y. If so, connect the cables to like colors.

2 Using an audio cable, connect the DVD player's Audio OUT jacks to the projection TV's AUDIO IN jacks. Be sure to use the same row of inputs that you used for the video connection (VIDEO IN 5 or 6).



Connecting a DVD Player with A/V Connectors

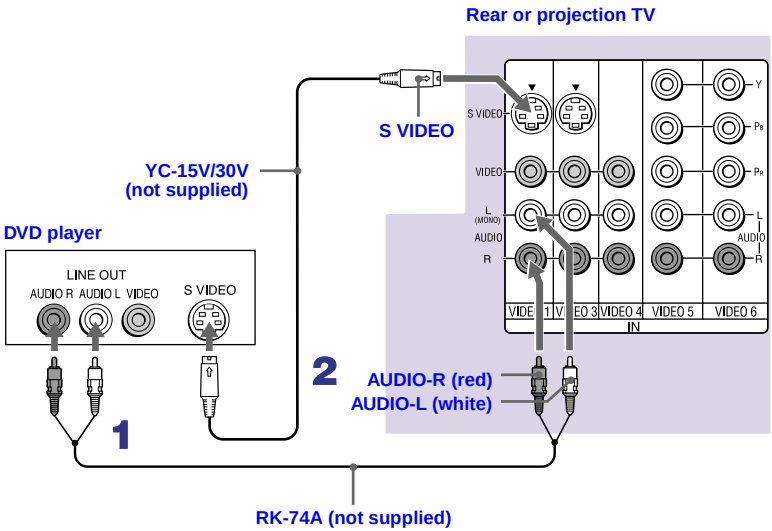
Use this hookup if:

- Your DVD player does not have component (Y, PB, PR) jacks.

If your DVD player has video component output connectors: for best picture quality use the connection described on page 26.

Disconnect all power sources before making any connections.

1. Using audio cables, connect the DVD player's Audio OUT jacks to the projection TV's AUDIO IN jacks.
2. Using an S VIDEO cable, connect the DVD player's S VIDEO jack to the projection TV's S VIDEO jack.



Use TV/VIDEO on the remote control to switch between the VCR, DVD player and cable TV inputs.

Connecting a Digital TV Receiver

Be sure to read the Set-top box manual.

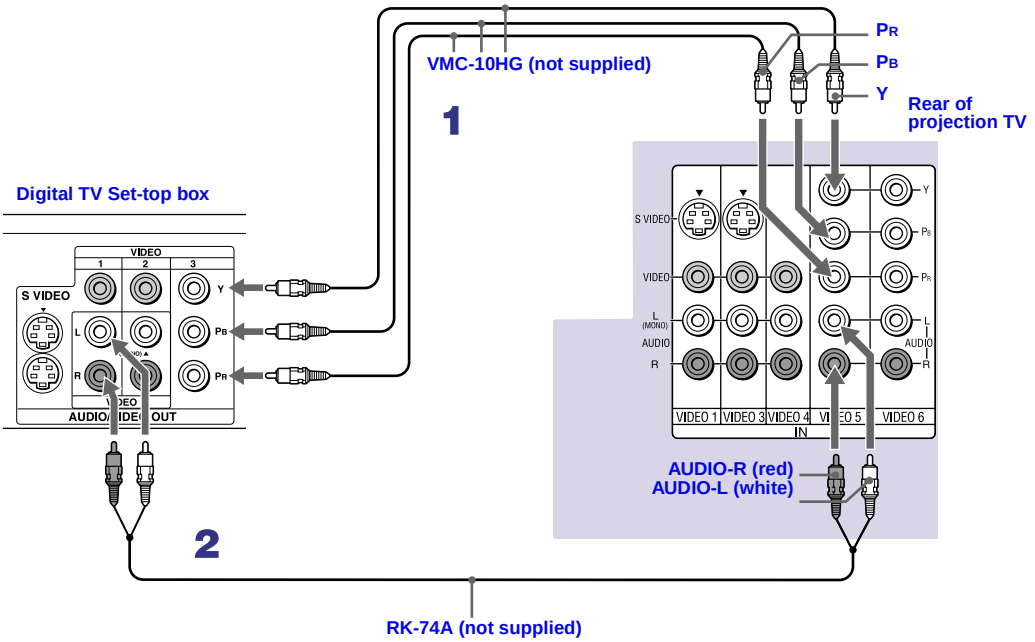
Disconnect all power sources before making any connections.

1 Using three separate component video cables, connect the Digital TV Set-top box's Y, P_B and P_R jacks to the projection TV.

The Y, P_B and P_R jacks do not provide audio, so audio cables must be connected to provide sound.

Component input (Y, P_B and P_R) is recommended for optimum picture quality. Component input is necessary to view 480p, 720p and 1080i formats. You may also use component video or S VIDEO connections.

2 Using an audio cable, connect the Digital TV Set-top box's Audio OUT jacks to the projection TV's AUDIO IN jacks.



You cannot record the signal from any equipment connected into the Y, P_B and P_R connectors.

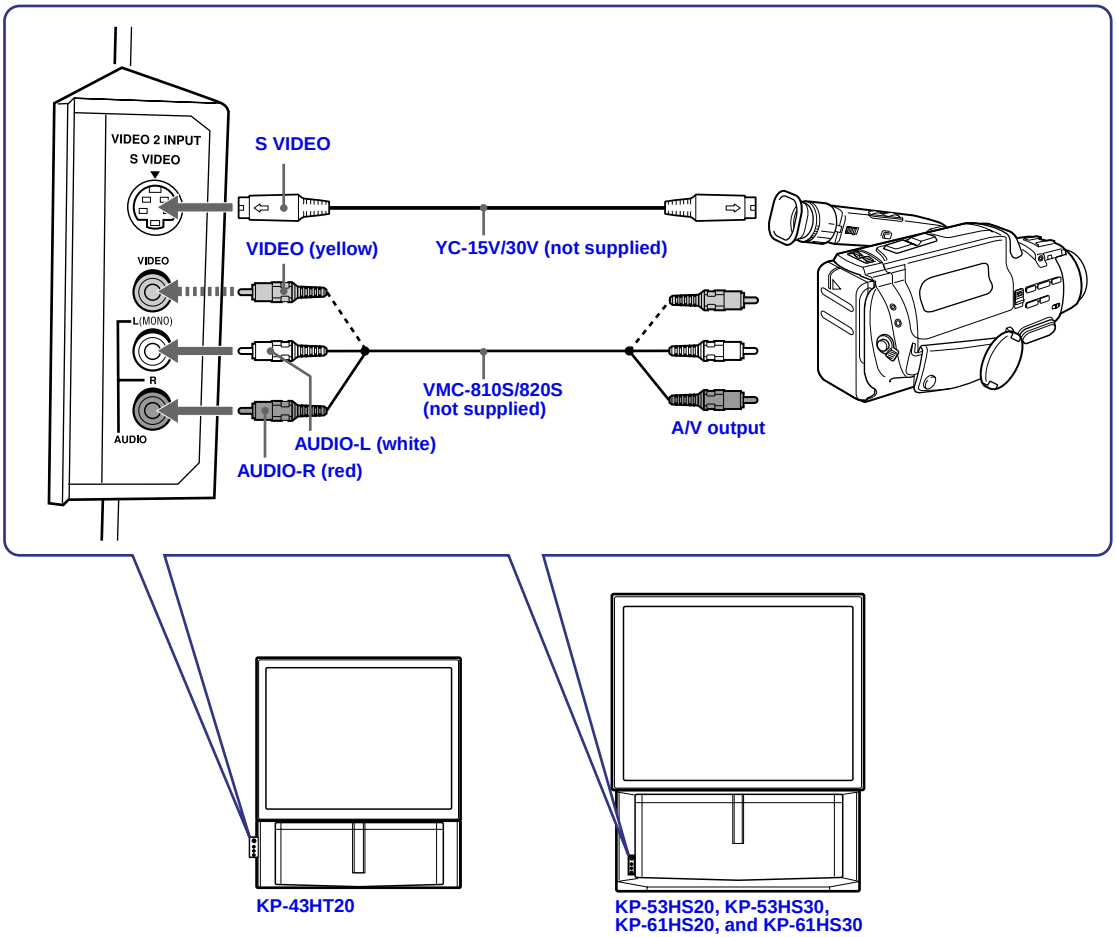
This projection TV is not compatible with digital TV receivers configured with RGB or VGA output connectors.

Connecting a Camcorder

For easy connection of the camcorder, the projection TV has front Audio and Video inputs (shown below). However, if you prefer, you can also connect the camcorder to the projection TV's rear Audio and Video IN jacks.

Using AUDIO and S VIDEO cables, connect the camcorder's Audio and S VIDEO OUT jacks to the projection TV's AUDIO and S VIDEO IN jacks.

- If you have a mono camcorder, connect its left audio output to the projection TV's AUDIO L jack.
- If your camcorder is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.



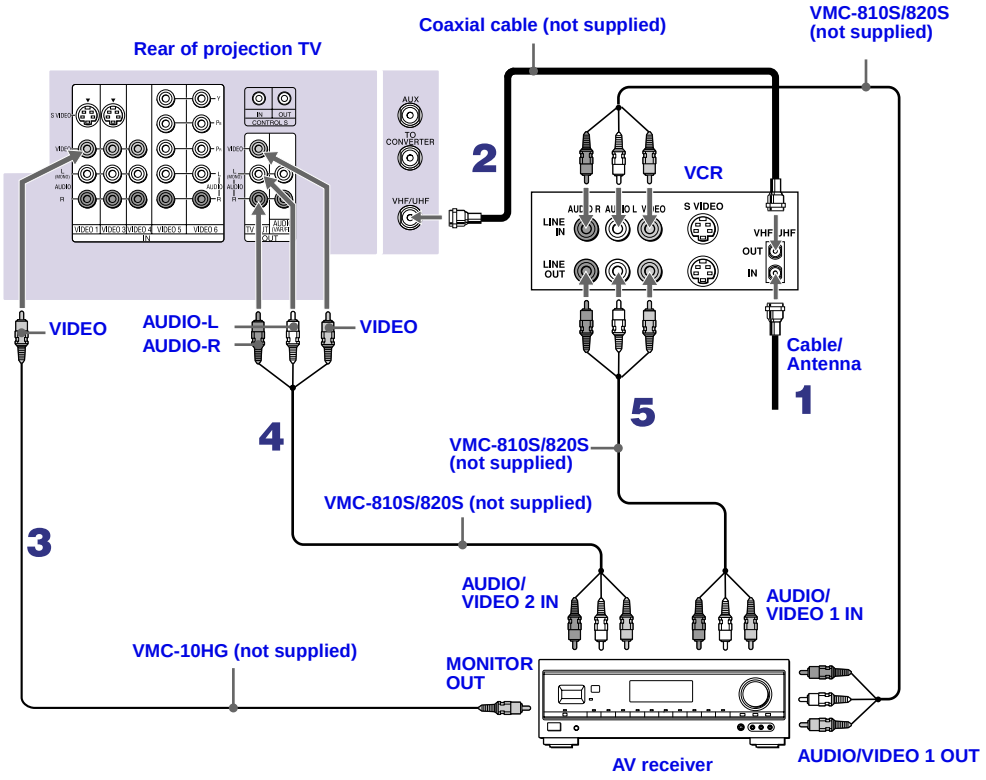
Connecting an AV Receiver

For greater control of all audio and video equipment, connect an AV receiver.

Change “Video Label” for the VIDEO 1 input to “Receiver.” (see page 64)

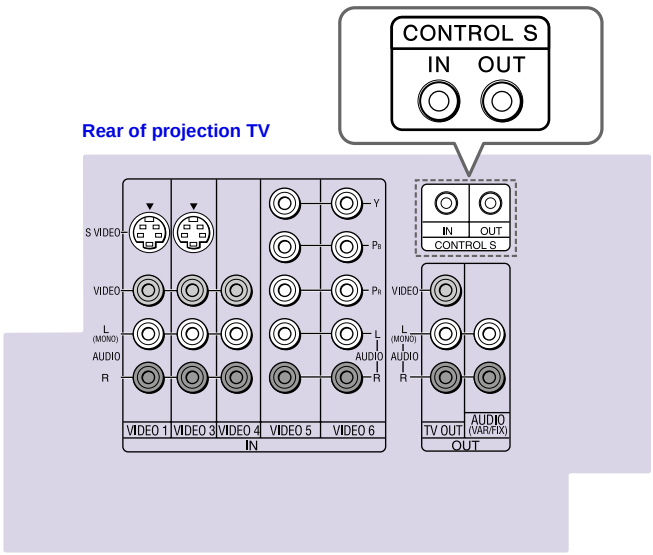
Disconnect all power sources before making any connections.

1. Connect the coaxial cable from the incoming cable connection or antenna to IN on the VCR.
2. Using a coaxial cable, connect OUT on the VCR to VHF/UHF on the projection TV.
3. Using a VIDEO cable, connect VIDEO of VIDEO 1 IN on the projection TV to MONITOR OUT on the AV receiver.
4. Using an AUDIO/VIDEO cable, connect TV OUT on the projection TV to AUDIO/VIDEO 2 IN on the AV receiver.
5. Using an AUDIO/VIDEO cable, connect the video equipment to the AV receiver.
6. Select the Setup menu and set “Video Label” to “Receiver” to fix your TV’s input to AV receiver. (see “Video Label” on page 64)



Using the CONTROL S Feature

CONTROL S allows you to control your projection TV system and other Sony equipment with one remote control. In addition to allowing you to control multiple devices with one remote control, the CONTROL S feature allows you to always point your remote control at your projection TV, instead of having to point it at the other equipment, which might be hidden or out of direct line of sight.



Setting Up the Projection TV Automatically

After you finish connecting your projection TV, you can run Auto Setup to set up your channels. The Auto Setup screen appears when you turn your projection TV on for the first time after installing it. If you do not want to set up the channels at this time, you can do it later by using the Auto Program feature in the Channel menu. (see page 53)

The Auto Setup feature does not apply for installations that use a cable box for all channel selection.

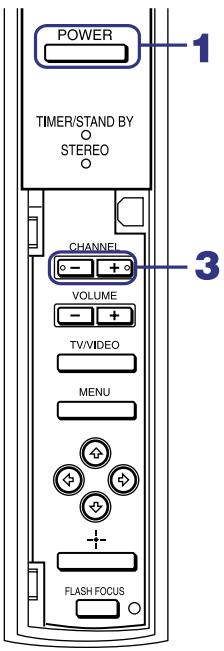
Using Auto Setup

1 Press POWER on the front panel of your projection TV or on the remote control to turn on the projection TV.

2 Press the TV (FUNCTION) button on your remote control. Red light will briefly appear.

3 Press CH+ on your projection TV to run Auto Setup, or press CH– to exit. If you use the channel buttons on your remote control, be sure to use the main set of buttons ( ).

Projection TV front panel



You can run Auto Program by selecting it in the Channel menu, as described on page 53.

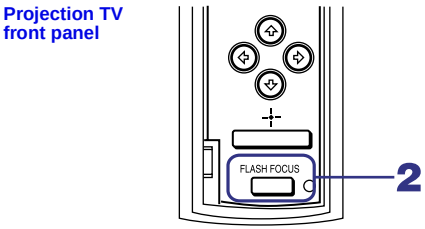
Adjusting the Convergence Automatically – FLASH FOCUS™ –

The projection tube image appears on the screen in three layers (red, green and blue). If they do not converge, the color is poor and the picture blurs.

Before you use your projection TV, be sure to adjust the convergence.

The FLASH FOCUS feature allows you to adjust the convergence automatically.

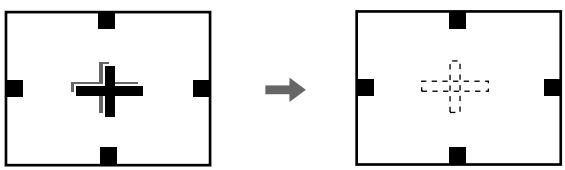
> It is recommended to perform FLASH FOCUS about 30 minutes after the projection TV is first turned on.



1 Receive a TV or cable TV program.

2 Press FLASH FOCUS.

The cross pattern appears and FLASH FOCUS begins to work. The adjustment is completed when the cross pattern becomes white and will come back to the program you are watching.



To obtain an optimum convergence for Digital TV programs

The optimum convergence alignment varies with digital TV formats. Whenever you find that the picture blurs, press FLASH FOCUS.

> You cannot perform any other functions until FLASH FOCUS has completed its cycle.

> If you perform any other operation while FLASH FOCUS is in progress, FLASH FOCUS operation is canceled.

> Unshielded speakers or other metallic objects can cause picture distortion if placed close to the projection TV.

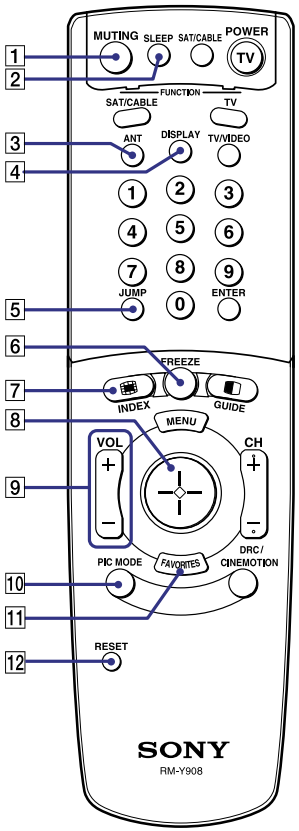
Using the Features

Using the Remote Control

The following table describes the buttons on the remote control that are for more advanced functions.

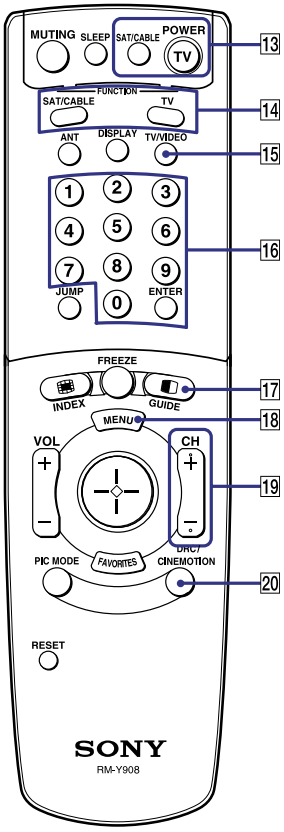
Main Power button must be turned ON to activate the remote control.

Button Descriptions



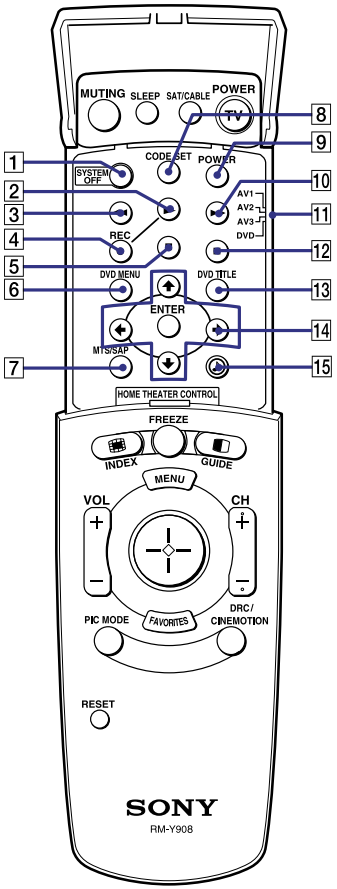
Outside Panel

Button	Description
1 MUTING	Press to mute the sound. Press again or press VOL + to restore the sound.
2 SLEEP	Press repeatedly until the projection TV displays the time in minutes (15, 30, 45, 60, or 90) that you want the projection TV to remain on before shutting off automatically. Cancel by pressing until SLEEP OFF appears. While Sleep feature is set, press once to view remaining time.
3 ANT	Changes between the VHF/UHF input to the AUX input.
4 DISPLAY	Press once to display the current time and channel label (if set) and channel number. Press again to turn Display off. See page 62 for details on setting the time.
5 JUMP	Press to jump back and forth between two channels. The projection TV alternates between the current channel and the last channel that was selected.
6 FREEZE	Freezes the window picture. Press again to restore the picture.
7 INDEX	Press to enter the Channel Index mode. You can view and select from twelve channels without leaving the current one.
8	Joystick allows for movement of the on-screen cursor. Pressing down on the center of the joystick selects the item.
9 VOL +/–	Adjusts the volume.
10 PIC MODE	Press repeatedly to step through the available video picture modes: Vivid, Standard, Movie and Pro. Also available in the Video menu. For details, see “Selecting Video Options” on page 48.
11 FAVORITES	Displays the Favorite Channels list. For details, see “Using Favorite Channels” on page 40.
12 RESET	Press when in a menu to reset the settings to the factory defaults.



	Button	Description
13	POWER buttons (GREEN)	Turn on and off the projection TV and other audio/video equipment you have programmed into the remote control. For instructions, see “Programming the Remote Control” on page 65.
14	FUNCTION buttons	Select the equipment (TV, SAT/CABLE) that you want to operate. The indicator lights up momentarily when pushed to show which device the remote control is operating.
15	TV/VIDEO	Cycles through the video equipment connected to your projection TV’s video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, VIDEO 5 and VIDEO 6.
16	0 – 9 and ENTER	Press 0 - 9 to select a channel, the channel changes after 2 seconds. Press ENTER to select immediately.
17		Turns on/off Twin View. For details, see “Using Twin View™” on page 41.
	GUIDE	Displays the program guide of your satellite.
18	MENU	Press to display the projection TV on-screen menu. Press again to exit from the menus.
19	CH +/–	Scan through channels.
20	DRC/ CINEMOTION	Press repeatedly to step through the available high-resolution picture modes: Interlaced, Progressive and CineMotion. For details, see “Using the Video Menu” on page 48.

To scan rapidly through the channels, press and hold down CH+ or CH–.



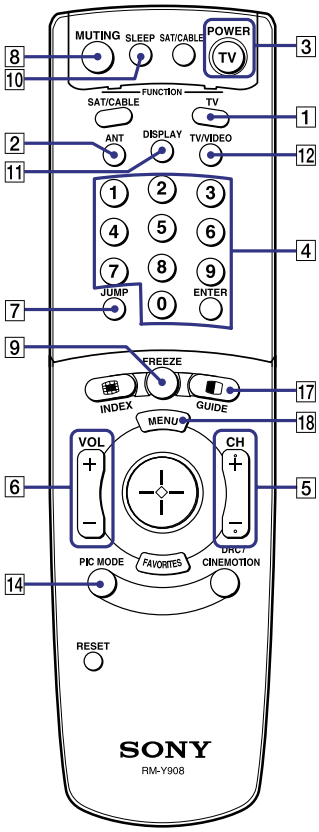
Inside Panel

	Button	Description
1	SYSTEM OFF	Press to turn off the projection TV and all equipment connected with S-Link.
2	►	Play
3	◄◄	Rewind
4	REC	Record
5	■	Stop
6	DVD MENU	Displays the DVD menu.
7	MTS/SAP	Press to scroll through the Multi-channel TV Sound (MTS) options: Stereo, Auto SAP, and Mono.
8	CODE SET	Used for programming the remote control to operate non-Sony video equipment. For details, see “Programming the Remote Control” on page 65.
9	POWER	Press to turn on the DVD/VCR player you have programmed into the remote control. For instructions, see “Programming the Remote Control” on page 65.
10	►►	Fast-forward
11	AV1 AV2 AV3 DVD	Use to switch control for connected video equipment. You can program one video source for each switch position. For details, see “Programming the Remote Control” on page 65.
12	❚❚	Pause (Press again to resume normal playback)
13	DVD TITLE	Displays the DVD title.
14	↑, ↓, ←, →, and ENTER	Use to operate the DVD menu.
15	♪	Press to select an audio option: Steady Sound ON or OFF.

Watching the TV

Many TV features can be accessed directly through the remote control. The following will explain the function of some buttons found on your remote control.

Buttons for Projection TV Operations



1 TV (FUNCTION)

Activates the remote control for use with the projection TV.

2 ANT— (AUX input)

Press to change between the VHF/UHF input and the AUX input. (for detailed connection information, see “Cable and Antenna” on page 16 or “Cable Box Connections” on page 17)

3 TV (POWER)

Turns the projection TV on and off. If a video input indication (e.g., VIDEO 1, VIDEO 2) appears on the screen, press TV/VIDEO or CH +/ – until a channel number appears.

4 0-9 and ENTER

Use for direct channel selection. Press 0-9 to select a channel (for example, to select channel 10, press 1 and 0). The channel will change after 2 seconds, or you can press ENTER for immediate selection.

5 CH +/–

Press to scan through the channels (+ up or – down).

6 VOL +/–

Press to adjust the volume (+ up or – down).

7 JUMP

Press to alternate or jump back and forth between two channels. The projection TV will jump between the current channel and the last channel selected.

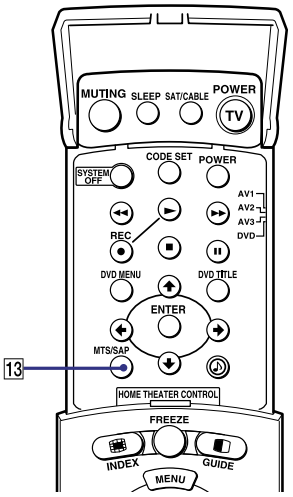
8 MUTING

Press to mute the sound. “MUTING” will appear on the screen and will dim three seconds later. To restore sound, press again or press VOL +.

9 FREEZE — (yellow labeled button)

This is useful when you need to copy down information that appears on the TV’s screen. (see “Using the Freeze Function” on page 44)

(Continued)



10 SLEEP

Press repeatedly until the projection TV displays the approximate time in minutes (15, 30, 45, 60, or 90) that you want the projection TV to remain on before shutting off automatically.

Cancel by pressing SLEEP until “SLEEP OFF” appears.

11 DISPLAY

Press to display the channel number, current time and channel label (if set).

To turn the display off, press DISPLAY again.

12 TV/VIDEO

Press repeatedly to scroll through available video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, VIDEO 5 and VIDEO 6.

If you select Skip as a Video Label in the Setup menu, your projection TV will skip the video input you selected. (see “Video Label” on page 64)

13 MTS/SAP

Press to scroll through the Multi-channel TV Sound (MTS) options. (see “MTS” on page 50)

14 PIC MODE

Press PIC MODE repeatedly to directly choose one of five different video modes that best suits the program you are watching.

Vivid: Select for enhanced picture contrast and sharpness.

Standard: Select to display a standard picture for normal viewing environments.

Movie: Select to display a finely detailed picture for low light environments.

Pro (Professional): Select to display a picture with minimum enhancements.

When you select each mode, you can also adjust the picture quality (such as Brightness, Color, etc.) to suit your taste. For details, see “Mode” on page 48.

Watching the Digital TV

When you have connected the DTV receiver, you can enjoy digital TV programs. This projection TV is capable of receiving the 1080i, 720p, 480p and 480i digital TV formats.

✍ This projection TV is not capable of displaying a native 720p format signal. When the 720p format signal is received, it is converted into a 480p format signal.

To view a digital TV program

1. Connect the DTV receiver to VIDEO 5 or 6 IN on the projection TV. (for details, see page 28)
2. Press TV/VIDEO to select VIDEO 5 or 6.
3. Select a digital channel on the DTV receiver. For details, see the Operating Manual of the DTV receiver.
4. Adjust the volume on this projection TV as necessary.

✍ The optimum convergence alignment varies with digital TV formats. Whenever you find that the picture blurs, press FLASH FOCUS. (for details, see page 33)

Using Favorite Channels

The Favorite Channel feature lets you select programs from a list of favorite channels that you preset.

To display a list of your favorite channels:

Your Favorite Channel options can be set automatically or manually. The factory setting for Favorite Channel is Auto.
When Favorite Channel is set to Auto, the last eight channels selected with 0-9 buttons will be set as Favorite Channel options. If you want to input your own selections as Favorite Channel settings, see "Favorite Channel" on page 52.

1 Press FAVORITES.

The Favorite Channel options appear.

2 Move the joystick up or down to highlight the channel you want to watch. The program on that channel appears in the preview window. Press ⊕ to select.

Using Twin View™

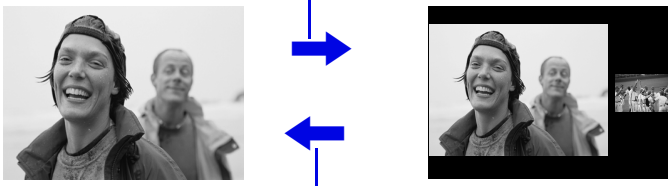
Twin View enables you to watch two programs at the same time. You can also change the size of both the left and right pictures.

Displaying Twin Pictures

To display twin pictures

1 Make sure your projection TV is tuned to a working channel.

2 Press ◑.



To cancel twin pictures

❑ Press ◑ again (or press ⊕).

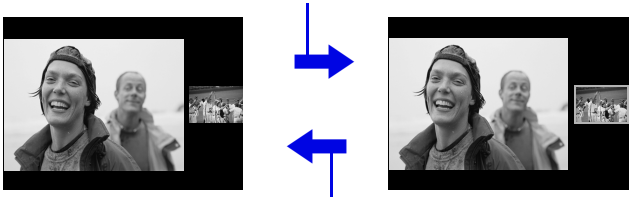
Activating the Picture

Although two pictures appear on the screen at the same time, only one picture is active. Change the picture size by using the joystick. For an active picture, you can:

- ❑ Change channels.
- ❑ Adjust the volume.
- ❑ Switch the input sources from VHF/UHF to cable by pressing ANT or TV/VIDEO to switch the video input.
- ❑ Change the picture size by pressing the joystick up or down.

To activate the right picture

❑ Move the joystick to the right.



To activate the left picture

❑ Move the joystick to the left.

(Continued)

- When you adjust the twin screen sizes, the projection TV memorizes the change. The next time you use the Twin View feature with 480i or 480p format input source, the memorized sizes appear.
- When viewing an enhanced 16:9 picture, the aspect ratio changes to 4:3 in Twin View. The picture will be reformatted to that aspect ratio.
- If viewing a 720p or 1080i format input source, the aspect ratio will maintain the original 16:9 aspect ratio.
- Hookups that affect your ability to use Twin View:
  - If you are viewing all channels through the cable box, the Twin View feature will not work. The cable box only unscrambles one signal at a time, so the right picture will be the same as the left picture.
  - You can watch a scrambled cable channel and another video source. Be sure your DVD player, VCR or satellite receiver are connected to one of the VIDEO IN 1-6 and AUX inputs on the rear of the projection TV. Pictures from equipment connected to VIDEO 5, 6 and AUX will only appear in the left picture, not in the right.
- The active picture is highlighted in cyan.

Changing the Picture Size

The zoom feature lets you change the size of the left and right pictures.

To enlarge the left picture (reduce the right)

1. Move the joystick left to activate the left picture (if not already activated).
2. Move the joystick up to enlarge the picture and move the joystick down to reduce the picture.

To enlarge the right picture (reduce the left)

1. Move the joystick right to activate the right picture (if not already activated).
2. Move the joystick up to enlarge the picture and move the joystick down to reduce the picture.

When you adjust the twin screen sizes, the projection TV memorizes the change. The next time you use the Twin View function, the memorized sizes appear.

Using the Freeze Function

The FREEZE button allows you to temporarily capture a program's picture. You can use this feature to write down information such as phone numbers, recipes, etc.

To use the Freeze function

1 When the program information you want to capture is displayed, press FREEZE.

2 The projection TV switches to Twin View mode and displays the "frozen" picture on the right, while the current program continues on the left.

3 To cancel and return to normal viewing, press FREEZE.

Freeze feature is not available if you are already in Twin View™ mode.

Using Channel Index

Channel Index allows you to display multiple channels and select one directly.

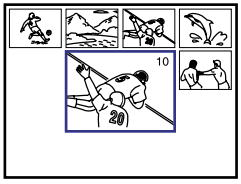
The channels used for Channel Index will come directly from the projection TV's list of receivable channels (those set during "Auto Program" on page 53)

Channel Index will not function when Parental Lock is activated. (See "Using the Parent Menu" on page 54.)

To use the Channel Index function

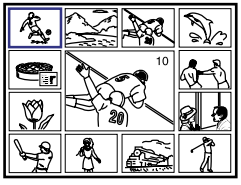
1 Press ⊞.

The current channel will be reduced in size and displayed in the center of the screen in normal motion picture format. The first twelve receivable channels will appear one after another, clockwise, around the center picture. These small pictures are updated in intervals of one second. The channel number and channel caption (if set) on the second and later appearances will dim.

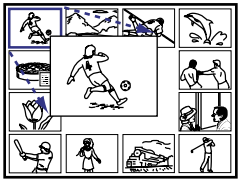


A cyan-colored frame will appear to indicate current channel selection.

2 Move the joystick in any direction to move the cyan frame to the channel that you wish to view, and press ⊕.



The selected channel will zoom in and move to the center, and the sound of that channel will be heard.



(Continued)

For the center picture you can:

- Change the channel by pressing 0-9 and ENTER.
- Switch the input sources from VHF/UHF to cable by pressing ANT or to the video input by pressing TV/VIDEO, without changing the surrounding channels.

> Sound will only be heard from the center picture.
>
> If one of the pictures received through Channel Index is snowy, the entire screen may become unstable. In this case, erase the snowy channel. (see "Channel Skip/Add" on page 53)
>
> If you leave the Channel Index screen displayed for an hour without any additional operation, Channel Index is canceled and the normal picture reappears.

3 If you wish to view another channel, repeat step 2.

To view another twelve channels, press CH+.
To view the previous twelve, press CH–.
To view the normal picture of the selected channel, proceed to step 4.

4 Press ⊕.

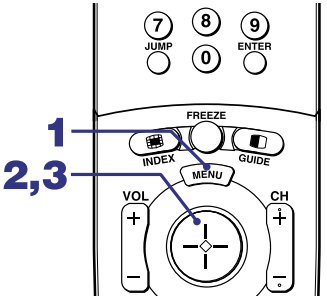
The center picture will be enlarged for normal viewing.

To cancel Channel Index

- Press ▣ again to resume normal viewing.

Using the Menus

Overview



Opening and choosing a menu:

1. Press MENU to display the menu screen.
2. Move the joystick to the desired menu icon and press ⊕ to select it.
3. Use the joystick to scroll through the features.
4. See the specific menu page for instructions on moving through the menu.

The menu gives you access to the following features:

Menu Icon	Description	Page
Video	Allows you to make adjustments to your picture settings. It also allows you to customize the Picture Mode based on the type of program you are viewing.	48
Audio	Offers enhanced audio options such as listening to second audio programming (SAP), or customizing the Effect of the sound on your projection TV.	50
Channel	Allows you to set up a Favorite Channel list, run the Auto Program function, and more.	52
Parent	Lets you control the viewing of programs based on their ratings.	54
Timer	Lets you set the clock on your projection TV and allows you to program your projection TV for scheduled viewing using the Timers.	62
Setup	Provides several options for setting up your channels, labeling your Video inputs, and selecting the language of the on-screen menus.	63

To end a menu session:

Press MENU again.

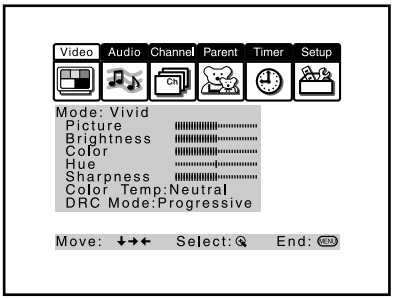
To end one menu session and move to another:

Press the joystick ↑ to return to the menu icons. Move the joystick to choose the next menu icon and press ⊕ to select it.

Using the Video Menu

To select the Video Menu

1. Press MENU.
2. Move the joystick to the Video icon and press ⊕.
3. Use the joystick to scroll through the features.
4. Press ⊕ to select a feature. That feature's adjustment appears.
5. Use the joystick to make the desired adjustments.
6. Press ⊕ to select/set.
7. Press MENU to exit the menu screen.



To restore the factory default settings for Picture, Brightness, Color, Hue, Sharpness and Color Temp

❑ Press RESET on the remote control when in the Video menu.

Selecting Video Options

To quickly and easily change from one Video Mode to another, use the PIC MODE on the remote control.

The Video menu includes the following options.

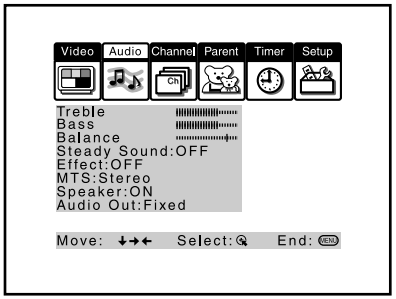
Option	Description	
Mode *Customized picture viewing*	Vivid	Select for enhanced picture contrast and sharpness.
	Standard	Recommended for Normal viewing conditions.
	Movie	Select for soft, film like, picture.
	Pro	Select for professional monitor like appearance.
	You can alter the Video menu settings (Picture, Brightness, Color, etc.) for each Mode.	
Picture	Adjust to increase picture contrast and deepen the color or decrease picture contrast and soften the color.	
Brightness	Adjust to brighten or darken the picture.	
Color	Adjust to increase or decrease color intensity.	
Hue	Adjust to increase or decrease the green tones.	
Sharpness	Adjust to sharpen or soften the picture.	
Color Temp *White intensity adjustment*	Choose from three color temperatures:	
	Cool	Select to give the white colors a blue tint.
	Neutral	Select to give the white colors a neutral tint.
	Warm	Select to give the white colors a red tint (NTSC-Standard).

Option	Description	
DRC Mode *Digital Reality Creation*	Creates a high-resolution picture with 4x density, for high quality sources (i.e., DVD player, Satellite receiver). Select from Interlaced, Progressive and CineMotion.	
	Interlaced	Recommended for moving pictures.
	Progressive	Recommended for still images and text.
	CineMotion	Recommended for 24 frame-per-second films.

Using the Audio Menu

To select the Audio Menu

1. Press MENU.
2. Move the joystick to the Audio icon and press ⊕.
3. Use the joystick to scroll through the options.
4. Press ⊕ to select an option. That option's settings appear.
5. Use the joystick to scroll through the settings.
6. Press ⊕ to select the desired setting.
7. Press MENU to exit the menu screen.



To restore the factory default settings for Treble, Bass and Balance

❑ Press RESET on the remote control when in the Audio menu.

Selecting Audio Options

The Audio menu includes the following options:

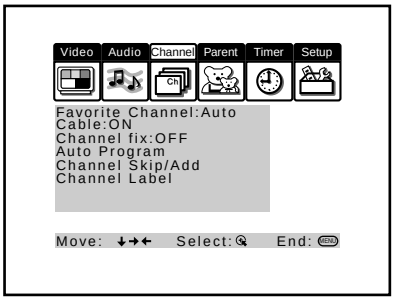
Option	Description	
Treble	Adjust to increase or decrease higher-pitched sounds.	
Bass	Adjust to increase or decrease lower-pitched sounds.	
Balance	Adjust to emphasize left or right speaker balance.	
Steady Sound	ON	Select to stabilize the volume.
	OFF	Select to turn off Steady Sound.
Effect	TruSurround	Select for surround sound (for stereo programs only).
	Simulated	Adds a surround-like effect to mono programs.
	OFF	Normal stereo or mono reception.
MTS *Enjoy stereo, bilingual and mono programs*	Stereo	Select for stereo reception when viewing a program broadcast in stereo.
	Auto-SAP	Select to automatically switch the projection TV to second audio programs when a signal is received. (If no SAP signal is present, the projection TV remains in Stereo mode.)
	Mono	Select for mono reception. (Use to reduce noise during weak stereo broadcasts.)

Option	Description	
Speaker	ON	Select to turn on the projection TV speakers.
	OFF	Select to turn off the projection TV speakers and listen to the projection TV's sound only through your external audio system speakers.
Audio Out *Easy control of volume adjustments*	Variable	The projection TV’s speakers are turned off, but the volume output from your audio system can still be controlled by the projection TV’s remote control.
	Fixed	The projection TV’s speakers are turned off and the volume, bass and treble output of the projection TV is fixed. Use your audio receiver’s volume control to adjust the volume through your audio system.

Using the Channel Menu

To select the Channel Menu

1. Press MENU.
2. Move the joystick to the Channel icon and press ⊕.
3. Use the joystick to scroll through the features.
4. Press ⊕ to select a feature. That feature's options appear.
5. Use the joystick to scroll through the options.
6. Press ⊕ to select the desired option.
7. Press MENU to exit the menu screen.



Selecting Channel Options

The Channel menu includes the following options:

Option	Description	
Favorite Channel	Auto	Select if you want Favorite Channel options to be set automatically to the last eight channels selected with the 0-9 buttons.
	Manual	Select if you want to input your own selections as Favorite Channel options. 1 Press ⊕ to select a favorite channel number. 2 Use the joystick to scroll through the channels until you find the channel you want to add to your favorites. 3 Press ⊕ to select it.
Cable	ON	Select if you are receiving cable channels with a CATV cable.
	OFF	Select if you are using an antenna.
	You should run Auto Program after changing the Cable setting.	

Option	Description	
Channel Fix *Useful when you have a cable box or satellite receiver connected*	2-6	"Fix" your projection TV's channel setting to 3 or 4 and use the cable box, VCR or satellite receiver to change channels. Select one of these settings if you have connected the device to the VHF/UHF jack.
	AUX 2-6	Same as 2-6, except you select one of these settings if you have connected the device to the AUX jack. (see page 15)
	VIDEO 1	Use when connecting an AV receiver to control external video sources. TV output should be connected through the AV receiver.
Auto Program	Automatically programs the projection TV for all receivable channels.	
Channel Skip/Add	Removes and adds viewable channels. **1** Use the joystick to scroll through the channels until you find the channel you want to skip/add. **2** Press ⊕ to select it. **3** Press the joystick up or down to toggle between "Add" and "Skip." **4** Press ⊕ to select.	
Channel Label	Label up to 20 channels with their station call letters.	

Using the Parent Menu

The Parent menu allows you to set up the TV to block programs according to their content and rating levels.

These ratings are assigned by a federal rating board. Not all programs are rated. Using the Parental Lock blocks programs with a specific rating, but it does not block an entire channel.

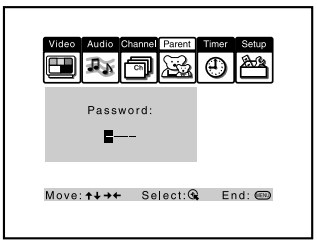
Channel Index will not function when Parental Lock is activated.

Using the Parent Menu

To select the rating

First, set a password, then select the country you reside in (U.S.A. or Canada) and your desired rating.

1. Press MENU.
2. Move the joystick to the Parent icon and press .

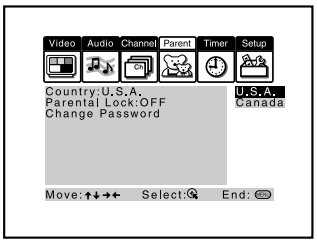


3. Use the 0-9 buttons on the remote control to enter your four-digit password.
4. Confirm your password by entering it again. Your password is stored and the Parent menu options appear.

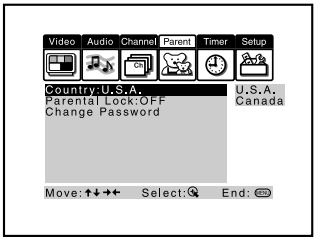
You need the password entered here for any future access into the Parent menu. If you lose your password, see “Lost password” on page 71.

If you want to change the password, see page 56.

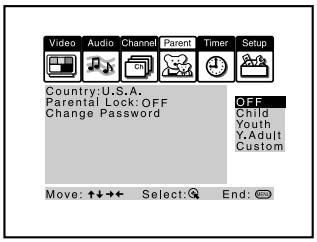
5. Make sure that “Country” is selected, and press .



6 Move the joystick up or down to select U.S.A. or Canada according to the country you reside in, and press ⊕.

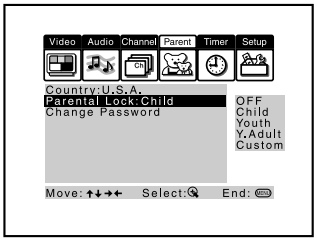


7 Move the joystick down to select “Parental Lock”, and press ⊕.



8 Move the joystick up or down to select a desired rating, and press ⊕.

If you select Child, Youth, Young Adult or Custom, the Parental Control is activated automatically.



If you want to select the ratings from Custom, see “Using Custom Rating Options” on page 57.

9 Press MENU to exit the menu screen.

(Continued)

If you are not familiar with the Parental Guideline rating system, you should select Child, Youth, or Young Adult to help simplify the rating selection. To set more restrictive ratings, select Custom.

For descriptions of Child, Youth, and Young Adult ratings, see pages 60 and 61.

The Parent menu includes the following options.

Option	Description	
Parental Lock *Turn ratings on/ off and select a rating system*	OFF	Parental lock is off. No programs are blocked from viewing.
	Child	Maximum ratings permitted are: ❑ US: TV-Y, TV-G, G ❑ Canada: TV-Y, C, G
	Youth	Maximum ratings permitted are: ❑ US: TV-PG, PG ❑ Canada: TV-PG, PG, 8 ans+
	Young Adult	Maximum ratings permitted are: ❑ US: TV-14, PG-13 ❑ Canada: TV-14, 14+, 13 ans+
	Custom	Select to set ratings manually. ❑ US: See page 60 for details. ❑ Canada: See page 61 for details.
Change Password	For changing your password. (see below)	

To deactivate the Parental Control feature

❑ Set Parental Lock to OFF when in the Parent menu.

To change the password

1 Select Change Password option when in the Parent menu using the joystick, and press ⊕.

2 Enter a new four-digit password using the 0-9 buttons.

3 Confirm the new password by entering it again.

4 Press MENU to exit the menu screen.

Viewing Blocked Programs

You can view a blocked program by entering the password.

1 Press ENTER when tuned to a blocked program.

2 Enter your password using the 0-9 buttons.

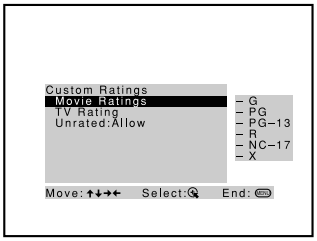
Parental Control will be canceled temporarily until you turn your projection TV off.

Using Custom Rating Options

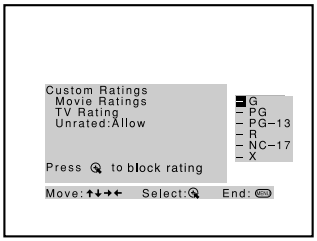
If you want to select the ratings to be blocked from Custom, follow the procedure below.

1 Perform the steps 1 to 7 in “To select the rating” on page 54 to display the Parental Lock options.

2 Move the joystick up or down to select “Custom,” and press ⊕.

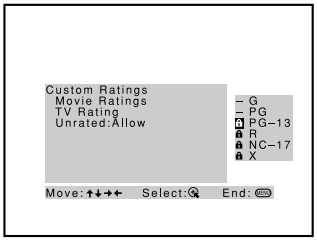


3 Make sure that “Movie Ratings” is selected, and press ⊕.



4 Move the joystick up or down to select the rating to be blocked, and press ⊕.

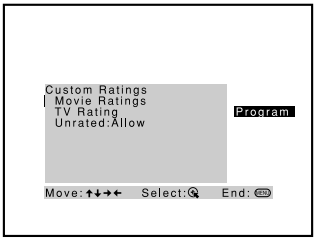
The 🔒 indicator automatically appears beside the selected rating and all “higher” ratings, indicating that the programs that match the ratings will be blocked.



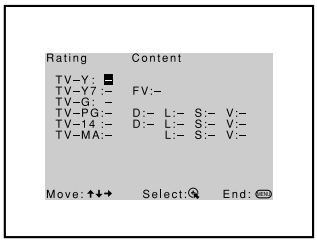
To unblock a rating, select it by moving the joystick up or down, then press ⊕. The indicator 🔒 changes into “-” and all “lower” ratings are unblocked.

(Continued)

5 Move the joystick left, then down, to select “TV Rating” or “Program,” and press ⊕.

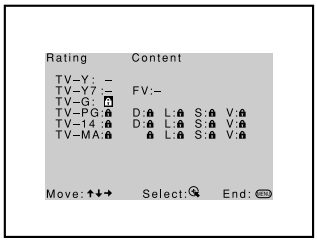


6 The “TV Rating” setting menu appears.



7 Move the joystick up or down to select the rating to be blocked, and press ⊕.

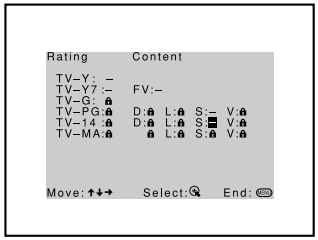
The 🔒 indicator automatically appears beside the selected rating and all “higher” ratings, indicating that the programs that match the ratings will be blocked.



To unblock a rating, select it by moving the joystick up or down, then press ⊕. The indicator 🔒 changes into “-” and all “lower” ratings are unblocked.

Some TV ratings have additional content ratings called “extenders.” The extenders are defined as follows: D (sexually suggestive Dialog), FV (Fantasy Violence), L (coarse Language), S (Sexual situations) and V (Violence). By setting the extenders, you can define additional viewing limits. All of the extenders included in the selected ratings will be blocked. If you wish to allow any of them to be viewed, go to step 8.

8 Move the joystick left or right to select the extender to be viewed, and press ⊕.



"–" appears beside the selected extender, indicating that the programs that match the extender can be viewed.

If you press ⊕ again, 🔒 is displayed to show that the programs that match the extender will be blocked again.

9 Repeat step 8 for other extenders.

All programs that match the ratings you select and higher, except for the extenders that were canceled, will be blocked.

10 Press MENU to exit the menu screen.

US custom rating options

If you selected U.S.A. as the country of residence on page 54, the Custom Rating Menu includes the following options. (If you selected Canada, see page 61.)

To ensure maximum blocking capability, the age-based ratings should be blocked.

If you choose to block unrated TV programs, please be aware that the following programs may be blocked: emergency broadcasts, political programs, sports, news, public service announcements, religious programs and weather.

Option	*Description*	
Movie Rating	G	All children and General Audience.
	PG	Parental Guidance suggested.
	PG-13	Parental Guidance for children under 13.
	R	Restricted viewing, parental guidance is suggested for children under 17.
	NC-17 and X	No one 17 and under allowed.
TV Rating *Block programs by their rating, content or both*	Age-Based Options	
	TV-Y	All children.
	TV-Y7	Directed to older children.
	TV-G	General Audience.
	TV-PG	Parental Guidance suggested.
	TV-14	Parents Strongly cautioned.
	TV-MA	Mature Audience only.
	Content-Based Options	
	FV	Fantasy Violence.
	D	Suggestive Dialogue.
	L	Strong Language.
	S	Sexual situations.
	V	Violence.
Unrated *Block programs or movies that are broadcast without a rating*	Block	Blocks all programs and movies that are broadcast without a rating.
	Allow	Allows programs and movies that are broadcast without a rating.

The content ratings will increase depending on the level of the age-based rating. For example, a program with a TV-PG V (Violence) rating may contain moderate violence, while a TV-14 V (Violence) rating may contain more intense violence.

Canadian custom rating options

If you selected Canada as the country of residence on page 54, the Custom Rating Menu includes the following options. (If you selected U.S.A., see page 60.)

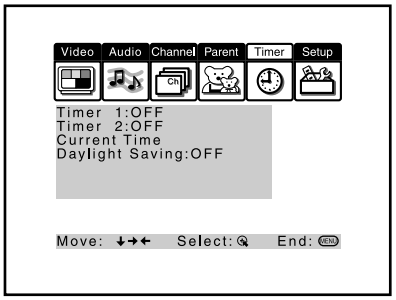
Option	Description	
English Rating	C	All children.
	C8+	Children 8 years and older.
	G	General programming.
	PG	Parental Guidance.
	14+	Viewers 14 and older.
	18+	Adult programming.
French Rating	G	General programming.
	8 ans+	Not recommended for young children.
	13 ans+	Not recommended for ages under 13.
	16 ans+	Not recommended for ages under 16.
	18 ans+	Programming restricted to adults.
USA Rating	See “TV Rating” on page 60 for details.	

Using the Timer Menu

To select the Timer menu

1 Press MENU.

2 Move the joystick to the Timer icon and press ⊕.



To set the Current Time

1 Use the joystick to select "Current Time", then press ⊕.

2 If it is currently Daylight Saving Time, be sure to set the mode to "ON" first.

3 Use the joystick to enter the correct time, then press ⊕.

4 Press MENU to exit the menu screen.

To set the Timer

Before setting the timer, be sure to set your projection TV's clock to the current time and Daylight Saving Mode.

1 Move the joystick to "Timer 1" or "Timer 2", then press ⊕.

2 Use the joystick to enter your day, time and channel preferences, then press ⊕ to select each one.

3 Press MENU to exit the menu screen.

To reset the Clock or Timers

❑ Press RESET on the remote control after selecting that option in the Timer menu.

Selecting Timer Options

The Timer menu includes the following options:

Option	Description	
Timer 1 Timer 2	Program	Select to set the Timer by day, time, duration, and channel.
	OFF	Select to turn off the Timer. (Your previous settings will be saved.)
Current Time	Set the current time.	
Daylight Saving	ON	Select in the spring to adjust the time during Daylight Saving Time.
	OFF	Select in the fall to adjust the time at the end of Daylight Saving Time.

Using the Setup Menu

To select the Setup Menu

1. Press MENU.
2. Move the joystick to the Setup icon and press ⊕.
3. Use the joystick to scroll through the features.
4. Press ⊕ to select a feature. That feature's options appear.
5. Use the joystick to scroll through the options.
6. Press ⊕ to select the desired option.
7. Press MENU to exit the menu screen.

Selecting Setup Options

The Setup menu includes the following options:

Option	Description	
Caption Vision	Allows you to select from three closed caption modes (for programs that are broadcast with closed caption).	
	OFF	Turns off Caption Vision.
	CC1, CC2, CC3, CC4	Displays a printed version of the dialog or sound effects of a program. (Should be set to CC1 for most programs.)
	TEXT1, TEXT2, TEXT3, TEXT4	Displays network/station information presented using either half or the whole screen (if available). For closed captioning, set to CC1.
	XDS *(Extended Data Service)*	Displays a network name, program name, program length, and time of the show if the broadcaster offers this service.

(Continued)

Option	Description	
Video Label	Allows you to label the audio/video components you connected to the projection TV so you can identify them when using TV/VIDEO. When in the Setup menu's Video Label feature, use the joystick to highlight an input to label, then press ⊕ to select it. Use the joystick to scroll through the labels. Press ⊕ to select the component you connected to each of the input jacks on the back of your projection TV. Select "Skip" if you do not have a component connected to a particular set of input jacks.	
	VIDEO 1/2/3/4	VHS, 8mm, Beta, LD, Game, SAT, DVD, Web, Receiver, DTV, Skip
	VIDEO 5/6	DVD, DTV, HD, Skip
	If you select "Skip", your projection TV skips this connection when you press TV/VIDEO.	
	When you select "Receiver" on Video Label, your projection TV's input is fixed.	
Language	Select to display all on-screen menus in your language of choice: English, Español, Français.	
16:9 Enhanced	Provides enhanced picture resolution for widescreen sources, such as selected DVD titles (only available when the projection TV is in VIDEO mode). Press TV/VIDEO and select from one of the following options:	
	AUTO	To activate automatically when a 16:9 signal is received.
	ON	To activate manually.
	OFF	To deactivate manually.

To use this feature with widescreen DVDs, set your DVD player to 16:9 aspect ratio.

AUTO/ON will appear when projection TV is in video mode 1-6.
ON/OFF will appear when projection TV is in VIDEO mode 5-6 and the 480p signal occurs.

Other Information

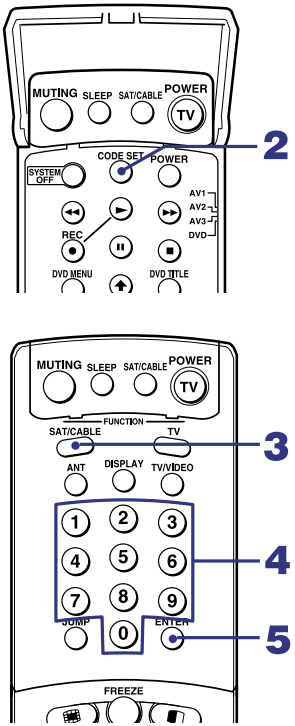
Programming the Remote Control

The remote control is preset to operate Sony brand video equipment.

Sony Equipment	Switch Position on Remote Control	Programmable Code Number
Beta, ED Beta VCRs	AV1	303
8 mm VCR	AV2	302
VHS VCR	AV3	301
DVD Player	DVD	751

If you have video equipment other than Sony brand that you want to control with the projection TV's remote control, use the following procedures to program the remote control.

The equipment must have infrared (IR) remote capability in order to be used with the remote control.

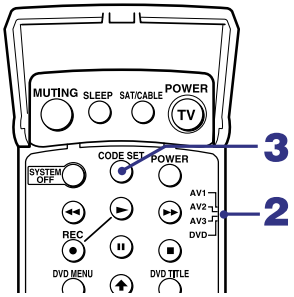


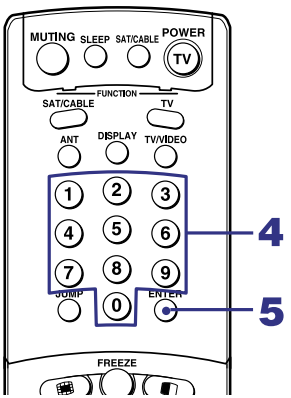
From the "Manufacturer's Codes" listed on page 67, select the three-digit code number for the manufacturer's code for your component. If more than one code number is listed, start with the number listed first. Use the code number to complete the following procedure.

To program a cable box or a satellite receiver

1. Open the panel of the remote control.
2. Press CODE SET inside the panel.
3. Close the panel and press SAT/CABLE (FUNCTON).
4. Enter the three-digit manufacturer's code number using the 0-9 buttons.
5. Press ENTER.
6. To check if the code number works, aim the projection TV's remote control at the component and press the green POWER button that corresponds with that component. If it responds, the programming is completed. If not, try using the other codes listed for that manufacturer.

(Continued)





To program video equipment

1 Open the panel of the remote control.

2 Move the slide switch to the desired component type.

3 Press CODE SET inside the panel.

> You must perform step 4 within 10 seconds of step 3, or you must start again from step 3.

4 Close the panel and enter the three-digit manufacturer's code number using the 0-9 buttons.

5 Press ENTER.

6 To check if the code number works, aim the projection TV's remote control at the component, open the panel, and press the green POWER button. If it responds, the programming is completed. If not, try using the other codes listed for that manufacturer.

Tips

- If more than one code number is listed, try entering them one by one until you come to the correct code for your component.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some rare cases, you may not be able to operate your component with the Sony remote control. In this case, use the component's own remote control unit.

Manufacturer's Codes

VCRs

Manufacturer	Code
Sony	301
Admiral (M. Ward)	327
Aiwa	338, 344
Audio Dynamic	314, 337
Broksonic	319, 317
Canon	309, 308
Citizen	332
Craig	302, 332
Criterion	315
Curtis Mathes	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316, 317, 318, 341
Fisher	330, 335
Funai	338
General Electric	329, 304, 309
Go Video	322, 339, 340
Goldstar	332
Hitachi	306, 304, 305,338
Instant Replay	309, 308
JC Penney	309, 305, 304, 330, 314, 336, 337
JVC	314, 336, 337, 345, 346, 347
Kenwood	314, 336, 332, 337
LXI (Sears)	332, 305, 330, 335, 338
Magnavox	308, 309, 310
Marantz	314, 336, 337
Marta	332
Memorex	309, 335
Minolta	305, 304
Mitsubishi/ MGA	323, 324, 325, 326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Optimus	327
Panasonic	308, 309, 306, 307
Pentax	305, 304
Philco	308, 309
Philips	308, 309, 310
Pioneer	308
Quasar	308, 309, 306
RCA/ PROSCAN	304, 305, 308, 309, 311, 312, 313, 310, 329
Realistic	309, 330, 328, 335, 324, 338
Sansui	314
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321, 335, 323, 324, 325, 326
Sharp	327, 328
Shintom	315
Signature 2000 (M. Ward)	338, 327
SV2000	338
Sylvania	308, 309, 338, 310
Symphonic	338
Tashiro	332
Tatung	314, 336, 337
Teac	314. 336, 338, 337
Technics	309, 308
Toshiba	312, 311
Wards	327, 328, 335, 331, 332
Yamaha	314, 330, 336, 337
Zenith	331

DVD Players

Manufacturer	Code
Sony	751
Panasonic	753
Pioneer	752
RCA	755
Toshiba	754

Cable Boxes

Manufacturer	Code
Hamlin/Regal	222, 223, 224, 225, 226
Jerrold/G. I.	201, 202, 203, 204, 205, 206, 207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific Atlanta	209, 210, 211
Tocom	216, 217
Zenith	212, 213

Satellite Receivers

Manufacturer	Code
Sony	801
General Electric	802
Hitachi	805
Hughes	804
Panasonic	803
RCA/ PROSCAN	802, 808
Toshiba	806, 807

Operating Other Components with Your Projection TV Remote Control

Operating a VCR

Open the panel and move the slide switch to the AV input you coded for this device.

To Do This ...	Press
Turn on/off	green POWER button (inside the panel)
Change channels	CH +/–
Record	► and REC simultaneously
Play	►
Stop	■
Fast forward	►►
Rewind the tape	◄◄
Pause	❚❚ (press again to resume normal playback)
Search the picture forward or backward	►► or ◄◄ during playback (release to resume normal playback)
Change input mode	Slide switch

Operating a DVD Player

Open the panel and move the slide switch to the DVD input you coded for this device.

To Do This ...	Press
Turn on/off	green POWER button (inside the panel)
Play	►
Stop	■
Pause	❚❚ (press again to resume normal playback)
Step through different tracks of an audio disc	►► to step forward or ◄◄ to step backward
Step through different chapters of a video disc	CH+ to step forward or CH– to step backward
Display the DVD menu	DVD MENU
Select tracks directly	0-9 buttons
Display the menu (Setup)	MENU
Display the DVD title	DVD TITLE
Operate the DVD menu	↑, ↓, ←, →, ENTER

Operating a Cable Box

To Do This ...	Press
Turn on/off	SAT/CABLE (POWER)
Select Cable Box	SAT/CABLE (FUNCTION)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/–
Back to previous channel	JUMP

Operating a Satellite Receiver

To Do This ...	Press
Turn on/off	SAT/CABLE (POWER)
Select Satellite Receiver	SAT/CABLE (FUNCTION)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/–
Back to previous channel	JUMP
Display channel number	DISPLAY
Display DBS guide	GUIDE
Display DBS menu	MENU
Move highlight (cursor)	Joystick or arrows
Select item	

Troubleshooting

If, after reading these operating instructions, you have additional questions related to the use of your Sony television, please call our Customer Information Services Center at 1-800-222-SONY (7669) (U.S. residents only) or (416) 499-SONY (7669) (Canadian residents only).

Problem	*Possible Remedies*
No picture (screen not lit), no sound	❑ Make sure the projection TV's power cord is connected securely to the wall outlet. ❑ Push the power button on the front of the projection TV. ❑ Check to see if the TV/VIDEO setting is correct: when watching TV, set to TV, and when watching connected equipment, set to VIDEO 1, 2, 3, 4, 5 or 6. ❑ Try another channel. It could be station trouble. ❑ The Parental Control feature is activated. (see "Using the Parent Menu" on page 54) ❑ If your projection TV does not turn on, and a red light keeps flashing, your projection TV may need service. Call your local Sony Service Center.
Remote control does not operate	❑ Batteries could be weak. Replace the batteries. ❑ Press TV (FUNCTION) when operating your projection TV. ❑ Make sure the projection TV's power cord is connected securely to the wall outlet. ❑ Locate the projection TV at least 3-4 feet away from fluorescent lights. ❑ Check the orientation of the batteries.
Dark, poor or no picture (screen lit), good sound	❑ Adjust the Picture setting in the Video menu. (see page 48) ❑ Adjust the Brightness setting in the Video menu. (see page 48) ❑ Check antenna/cable connections. ❑ Adjust the convergence again using FLASH FOCUS. (see "Adjusting the Convergence Automatically – FLASH FOCUS™ –" on page 33)
Good picture, no sound	❑ Press MUTING so that "MUTING" disappears from the screen. (see page 34) ❑ Make sure Speaker is set to ON in the Audio menu. (see page 51) ❑ Check the MTS setting in the Audio menu. (see "MTS" on page 50)
Cannot receive digital channels (when a DTV receiver is connected)	❑ Check the connections between the DTV receiver and the projection TV. (see page 28) ❑ Check your local listings to find out if you can receive digital broadcasts in your area.
Cannot receive upper channels (UHF) when using an antenna	❑ Change Cable to OFF. (see page 52) ❑ Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory. (see page 53)
No color	❑ Adjust the Color settings in the Video menu. (see page 48)
Only snow and noise appear on the screen	❑ Check the Cable setting in the Channel menu. (see "Cable" on page 52) ❑ Check the antenna/cable connections. ❑ Make sure the channel is broadcasting programs. ❑ Press ANT to change the input mode. (see page 37)
Dotted lines or stripes	❑ Adjust the antenna. ❑ Move the projection TV away from noise sources such as cars, neon signs, or hair-dryers.

Problem	Possible Remedies
Projection TV is fixed to one channel	❏ Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory. (see page 53) ❏ Check your Channel Fix settings. (see page 53)
Double images or ghosts	❏ Use a highly directional outdoor antenna or a cable (when the problem is caused by reflections from nearby mountains or tall buildings).
Cannot operate menu	❏ If the item you want to choose appears in gray, you cannot select it. ❏ Turn the projection TV's power off and on again.
Cannot receive any channels when using cable TV	❏ Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory. (see page 53) ❏ Check your cable settings. ❏ Make sure Cable is set to ON in the Channel menu. (see page 52)
Cannot gain enough volume when using a cable box	❏ Increase the volume of the cable box using the cable box's remote control. Then press TV (FUNCTION) and adjust the projection TV's volume.
Channel Index does not display all available channels	❏ Make sure Cable is set to ON in the Channel menu. (see "Cable" on page 52) ❏ Use Auto Program in the Channel menu to add receivable TV channels that are not presently in TV memory. (see page 53)
Cannot receive channels Unable to select a channel	❏ Use Auto Program in the Channel menu to add receivable TV channels that are not presently in TV memory. (see page 53)
Lost password	❏ In the password screen (see page 54), enter the following master password: 4357. The master password clears your previous password; it cannot be used to temporarily unblock channels.
Cannot change channels with the remote control	❏ Be sure you have not inadvertently switched your projection TV from channel 3 or 4 setting if you are using another device to change channels. ❏ If you are using another device to control channels, be sure the "function" button for that device has been pressed, or the slide switch is set correctly. For example, if you are using your cable to control channels, be sure to press SAT/CABLE.
Cannot cycle through the other video equipment connected to the projection TV	❏ Be sure the Video Label feature has not been set to Skip. (see page 64)
There is a black box on the screen	❏ You have selected a text option in the Setup menu and no text is available. (see page 63 to reset Setup selections) To turn this feature off, select OFF in the Caption Vision option. If you were trying to get closed captioning, select CC1 instead of Text 1-4.
There is no twin picture or it is just static	❏ Be sure your twin picture is set to a video source/channel that has a program airing. ❏ You may be tuned to a video input with nothing connected to it. Try cycling through your video inputs using TV/VIDEO. ❏ Twin View is not set to receive a signal from the AUX input. If you have connected a VCR, DVD player or satellite receiver to the AUX input on the projection TV, it will not show in the second picture.

(Continued)

Problem	Possible Remedies
I get the same program in the window picture as in the main picture	❏ Both may be set to the same channel. Try changing channels in either the main picture or the window picture. ❏ You may be running all your channels through a cable box. The cable box will only unscramble one signal at a time, so you cannot use the Twin View feature. If possible, run a direct cable to your projection TV's VHF/UHF input. (This will only work if your cable system provides an unscrambled signal.)
I cannot get anything but TV channels in my second picture	❏ Be sure the video label has not been set to skip your video inputs. See the Setup menu on page 63.
Favorite Channel does not display your choices	❏ Verify that Favorite Channel is set to Manual in the Channel menu. (see "Favorite Channel" on page 52)
Some video sources do not appear when you press TV/ VIDEO	❏ Ensure that Video Label is not set to SKIP. (see "Video Label" on page 64)

Specifications

Projection system	3 picture tubes, 3 lenses, horizontal in-line system	
Picture Tube	7-inch high-brightness monochrome tubes (6.3 raster size), with optical coupling and liquid cooling system	
Projection lenses	High performance, large diameter hybrid lens F1.1	
Antenna	75 ohm external terminal for VHF/UHF	
Television System	NTSC, American TV Standard	
Screen size (measured diagonally)	43 inches (KP-43HT20) 53 inches (KP-53HS20, KP-53HS30) 61 inches (KP-61HS20, KP-61HS30)	
Channel Coverage		
VHF	2-13	
UHF	14-69	
CATV	1-125	
Power Requirements	120V, 60 Hz	
Number of Inputs/Outputs		
Video (IN)	4	1 Vp-p, 75 ohms unbalanced, sync negative
S Video (IN)	3	Y: 1 Vp-p, 75 ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75 ohms
Audio (IN)	6	500 mVrms (100% modulation) Impedance: 47 kiloohms
AUDIO (VAR/FIX) OUT	1	500 mVrms (100 % modulation), Impedance: 470 ohms
TV Out	1	1 Vp-p, 75 ohms unbalanced, sync negative
CONTROL S (IN/OUT)	1	minijacks
Component Video Input	2 (Y, P_B, P_R)	Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative P_B: 0.7 Vp-p, 75 ohms P_R: 0.7 Vp-p, 75 ohms
RF Inputs	2	
Converter	1	

(Continued)

Supplied Accessories	
Remote Control	RM-Y908
AA (R6) Batteries	2 supplied for remote control
Optional Accessories	
AV Cable	VMC-810/820/830 HG
Audio Cable	RKC-515HG
Control S Cable	RK-G69HG
Component Video Cable	VMC-10/30 HG
AV receiver	STR-V555ES
TV Stand	SU-43HT4/43HT5
Speaker Output	20 W × 2 (KP-43HT20, KP-53HS30, KP-61HS30) 18 W × 2 (KP-53HS20, KP-61HS20)
Dimensions (W × H × D)	38 × 42 1/8 × 22 4/3 inches (965 × 1,069 × 577 mm) (KP-43HT20) 46 1/2 × 55 7/8 × 25 inches (1,180 × 1,417 × 632 mm) (KP-53HS20, KP-53HS30) 54 × 61 1/2 × 26 1/4 inches (1,370 × 1,560 × 666 mm) (KP-61HS20, KP-61HS30)
Mass	119 lb 8 oz (54.2 kg) (KP-43HT20) 152 lb 9 oz (69.2 kg) (KP-53HS20) 157 lb (71.2 kg) (KP-53HS30) 203 lb 11 oz (92.4 kg) (KP-61HS20) 210 lb 5 oz (95.4 kg) (KP-61HS30)
Power Consumption	
In Use	230 W
In Standby	Under 1 W

Design and specifications are subject to change without notice.

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If, after reading this instruction manual, you have additional questions related to the use of your Sony projection TV, please call one of the following numbers (English only).

Customers in the continental United States contact the Direct Response Center at:
1-800-222-SONY (7669)
Customers in Canada contact the Customer Relations Center at:
(416) 499-SONY (7669)

http://www.world.sony.com/

Printed in U.S.A.

HISTORY INFORMATION FOR THE FOLLOWING MANUAL:

SERVICE MANUAL — RA-6 CHASSIS

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KP-43HT20	RM-Y908	US	SCC-P65C-A
KP-43HT20	RM-Y908	CAN	SCC-P65C-A
KP-53HS20	RM-Y908	US	SCC-P65D-A
KP-53HS20	RM-Y908	CAN	SCC-P65D-A
KP-53HS30	RM-Y908	US	SCC-P65A-A
KP-53HS30	RM-Y908	CAN	SCC-P65A-A
KP-61HS20	RM-Y908	US	SCC-P65E-A
KP-61HS20	RM-Y908	CAN	SCC-P65E-A
KP-61HS30	RM-Y908	US	SCC-P65B-A
KP-61HS30	RM-Y908	CAN	SCC-P65B-A

ORIGINAL MANUAL ISSUE DATE: 7/2001

ALL REVISIONS AND UPDATES TO THE ORIGINAL MANUAL PRIOR TO 9/2004 ARE APPENDED TO THE END OF THE PDF FILE.

REVISIONS AND UPDATES AFTER 9/2004 ARE IDENTIFIED WITH ☛

REVISION DATE	REVISION TYPE	SUBJECT
7/2001	No revisions or updates are applicable at this time.	
3/2002	Correction - 1	IC702, IC703 P/N's corrected on A Board in Electrical Parts List
10/2002	Supplement - 1(Expired)	Data added for KP-53HS30 models with S/N's 90000001 and up
10/2002	Correction - 2	Add L5010, L5011 to Parts List and G Board Schematic
7/2003	Correction - 3	Electrical Parts List - P/N Correction/Addition on G Board
10/2003	Supplement - 2	Correction to Supplement - 1. This is being corrected to show current CRT P/N's only. The rest of the information did not change.
10/2004	Removed Note from section 3-11-1. Setup For Adjustment. Note is intended for use by the factory during production, and should not be performed by service technicians (Replaced Pg. 25 with Pg. 25)	
5/2005	Added Caution statement (Replaced Pg. 3 with Pg. 3) IC8004 P/N corrected on D Board in Electrical Parts List (Replaced Pg. 124 with Pg. 124)	

COLOR REAR VIDEO PROJECTOR

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9-965-431-08

Self Diagnosis Supported model

SERVICE MANUAL

RA-6 CHASSIS

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KP-43HT20	RM-Y908	US	SCC-P65C-A
KP-43HT20	RM-Y908	CAN	SCC-P65C-A
KP-53HS20	RM-Y908	US	SCC-P65D-A
KP-53HS20	RM-Y908	CAN	SCC-P65D-A
KP-53HS30	RM-Y908	US	SCC-P65A-A
KP-53HS30	RM-Y908	CAN	SCC-P65A-A
KP-61HS20	RM-Y908	US	SCC-P65E-A
KP-61HS20	RM-Y908	CAN	SCC-P65E-A
KP-61HS30	RM-Y908	US	SCC-P65B-A
KP-61HS30	RM-Y908	CAN	SCC-P65B-A

CORRECTION - 1

SUBJECT: A BOARD IC702, IC703 P/N CORRECTION

Correct the service manual as shown.
File this Correction with the service manual.

☛ : Corrected Item

Section 8: Electrical Parts List (Page 115)

INCORRECT

REF. NO.	PART NO.	DESCRIPTION
IC702	8-759-675-72	IC M24C08-WMN6T
IC703	8-759-675-72	IC M24C08-WMN6T

CORRECT

REF. NO.	PART NO.	DESCRIPTION
☛ IC702	8-759-575-71	IC M24C04-WMN6T
☛ IC703	8-759-675-64	IC M24C08-MN6T(A)

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HNC, HVC, Projection Display
Business Div.

English
2002JC7402-1
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SERVICE MANUAL

RA-6 CHASSIS

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KP-43HT20	RM-Y908	US	SCC-P65C-A
KP-43HT20	RM-Y908	CAN	SCC-P65C-A
KP-53HS20	RM-Y908	US	SCC-P65D-A
KP-53HS20	RM-Y908	CAN	SCC-P65D-A
KP-53HS30	RM-Y908	US	SCC-P65A-A
KP-53HS30	RM-Y908	CAN	SCC-P65A-A
☛ KP-53HS3	RM-Y908	US	SC -P65M-A (S/N 9000001 and up)
☛ KP-53HS3	RM-Y908	CND	SC -P65M-A (S/N 9000001 and up
KP-61HS20	RM-Y908	US	SCC-P65E-A
KP-61HS20	RM-Y908	CAN	SCC-P65E-A
KP-61HS30	RM-Y908	US	SCC-P65B-A

EXPIRED

SUPPLEMENT - 1

SUBJECT: THIS SUPPLEMENT IS FOR KP-53HS30 MODELS WITH S/N'S 90000001 AND UP.

Correct the service manual as shown.
File this Supplement with the service manual.

☛ :Added Item (for KP-53HS30 S/N's 90000001 and up)

Section 6: DIAGRAMS (Page 63)
6-3. SCHEMATIC DIAGRAMS - D (2/3) BOARD CIRCUIT

Section 7: EXPLODED VIEWS (Page 95, 96)
7-4. CHASSIS
7-5. PICTURE TUBE

Section 8: ELECTRICAL PARTS LIST (Page 122, 125, 130)

COLOR REAR VIDEO PROJECTOR

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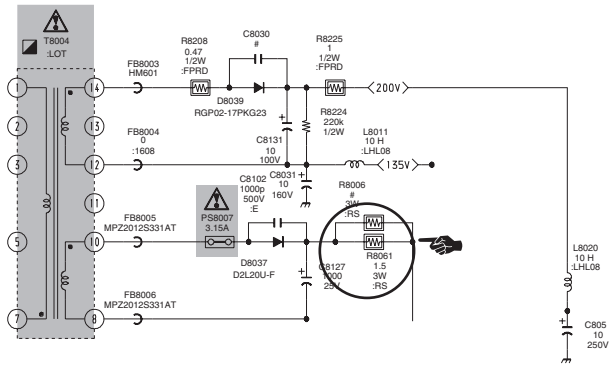
☛ : Added Item

SECTION 6: DIAGRAMS (Page 63) (for KP-53HS30 S/N's 90000001 and up)

6-3. SCHEMATIC DIAGRAMS - D (2/3) BOARD CIRCUIT



EXPIRED

SECTION 7: EXPLODED VIEWS (Page 82, 90) (for KP-53HS30 S/N's 90000001 and up)

7-4: CHASSIS (Page 85)

REF. NO.	PART NO.	DESCRIPTION
164 ☛	A-1404-674-A	D MOUNT (VAR)

7-5. PICTURE TUBE (Page 96)

REF. NO.	PART NO.	DESCRIPTION
☛ ⚠ 205	1-451-537-22	DEFLECTION YOKE
☛ ⚠ 207	8-733-597-15	CRT 07MVC3(R)-L(LF)
☛ ⚠ 209	8-733-662-15	CRT 07MVC2(G)-L(LF)
☛ ⚠ 210	8-733-596-25	CRT 07MVC3(B)-L(LFG)

SECTION 8: ELECT. PARTS LIST (Page 122, 125, 130) (for KP-53HS30 S/N's 90000001 and up)

(Page 122)

REF. NO.	PART NO.	DESCRIPTION
☛	A-1404-674-A	D MOUNT, (VAR)

(Page 125)

REF. NO.	PART NO.	DESCRIPTION			
☛ R8061	1-216-391-71	METAL OXIDE	1.5	5%	3W

(Page 130)

REF. NO.	PART NO.	DESCRIPTION
☛ ⚠	1-451-537-22	DEFLECTION YOKE
☛ ⚠	8-733-597-15	CRT 07MVC3(R)-L(LF)
☛ ⚠	8-733-662-15	CRT 07MVC2(G)-L(LF)
☛ ⚠	8-733-596-25	CRT 07MVC3(B)-L(LFG)

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Sony Technology Center
Technical Services
Service Promotion Department

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SERVICE MANUAL RA-6 CHASSIS

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KP-43HT20	RM-Y908	US	SCC-P65C-A
KP-43HT20	RM-Y908	CAN	SCC-P65C-A
KP-53HS20	RM-Y908	US	SCC-P65D-A
KP-53HS20	RM-Y908	CAN	SCC-P65D-A
KP-53HS30	RM-Y908	US	SCC-P65A-A
KP-53HS30	RM-Y908	CAN	SCC-P65A-A
KP-53HS30	RM-Y908	US	SCC-P65M-A (S/N 9000001 and up)
KP-53HS30	RM-Y908	CND	SCC-P65M-A (S/N 9000001 and up
KP-61HS20	RM-Y908	US	SCC-P65E-A
KP-61HS20	RM-Y908	CAN	SCC-P65E-A
KP-61HS30	RM-Y908	US	SCC-P65B-A

CORRECTION - 2

SUBJECT: ADD L5010, L5011 TO PARTS LIST AND G BOARD SCHEMATIC.

Correct the service manual as shown.
File this Correction with the service manual.

☛ :Corrected Item

Section 6: DIAGRAMS LIST (Page 66)
6-3. SCHEMATIC DIAGRAMS - G (2/2) BOARD CIRCUIT

Section 8: ELECTRICAL PARTS LIST (Page 128)

COLOR REAR VIDEO PROJECTOR

SONY®

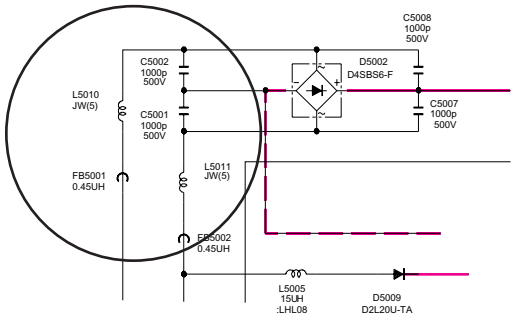
9-965-431-92

☛ : Corrected Item

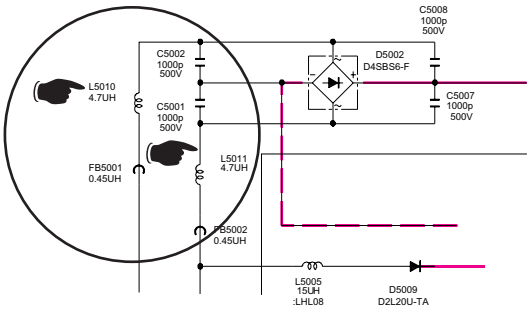
SECTION 6: DIAGRAMS (Page 66)

6-3. SCHEMATIC DIAGRAMS - G (2/2) BOARD CIRCUIT

INCORRECT



CORRECT



SECTION 8: ELECT. PARTS LIST (Page 66)

INCORRECT

REF. NO.	PART NO.	DESCRIPTION	
----------> NEEDS TO BE ADDED			
----------> NEEDS TO BE ADDED			

CORRECT

REF. NO.	PART NO.	DESCRIPTION	
☛ L5010	1-412-521-31	INDUCTOR	4.7UH
☛ L5011	1-412-521-31	INDUCTOR	4.7UH

Sony Corporation
Sony Technology Center
Technical Services
Service Promotion Department

English
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9-965-431-92

SERVICE MANUAL

RA-6 CHASSIS

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KP-43HT20	RM-Y908	US	SCC-P65C-A
KP-43HT20	RM-Y908	CAN	SCC-P65C-A
KP-53HS20	RM-Y908	US	SCC-P65D-A
KP-53HS20	RM-Y908	CAN	SCC-P65D-A
KP-53HS30	RM-Y908	US	SCC-P65A-A
KP-53HS30	RM-Y908	CAN	SCC-P65A-A
KP-53HS30	RM-Y908	US	SCC-P65M-A **(S/N 9000001 and up)**
KP-53HS30	RM-Y908	CND	SCC-P65M-A **(S/N 9000001 and up**
KP-61HS20	RM-Y908	US	SCC-P65E-A
KP-61HS20	RM-Y908	CAN	SCC-P65E-A
KP-61HS30	RM-Y908	US	SCC-P65B-A

CORRECTION - 3

SUBJECT: ELECTRICAL PARTS LIST
P/N CORRECTION/ADDITION ON G BOARD

Correct the service manual as shown.
File this Correction with the service manual.

☛ :Corrected Item

Section 8: Electrical Parts List (Page 97)
G Board (Pages 126-129)

INCORRECT			CORRECT			
IC5006	8-759-504-46	PQ05RF-1	☛	IC5006	8-759-069-28	PQ05RF-11
	Needs to be Added	---------->	☛	D5027	8-719-069-54	UDZSTE-175.1B
	Needs to be Added	---------->	☛	R5048	1-216-833-11	METAL CHIP 10K 5% 1/10W

COLOR REAR VIDEO PROJECTOR

SONY®

Sony Corporation
Sony Technology Center
Technical Services
Service Promotion Department

English
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SERVICE MANUAL

RA-6 CHASSIS

Self Diagnosis Supported model

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KP-43HT20	RM-Y908	US	SCC-P65C-A
KP-43HT20	RM-Y908	CAN	SCC-P65C-A
KP-53HS20	RM-Y908	US	SCC-P65D-A
KP-53HS20	RM-Y908	CAN	SCC-P65D-A
KP-53HS30	RM-Y908	US	SCC-P65A-A
KP-53HS30	RM-Y908	CAN	SCC-P65A-A
☛ KP-53HS30	RM-Y908	US	SCC-P65M-A **(S/N 9000001 and up)**
☛ KP-53HS30	RM-Y908	CND	SCC-P65M-A **(S/N 9000001 and up**
KP61HS20	RM-Y908	US	SCC-P65E-A
KP-61HS20	RM-Y908	CAN	SCC-P65E-A
KP-61HS30	RM-Y908	US	SCC-P65B-A
KP-61HS30	RM-Y908	CAN	SCC-P65B-A

SUPPLEMENT - 2

SUBJECT: THIS SUPPLEMENT IS FOR KP-53HS30 MODELS WITH S/N'S 90000001 AND UP.

Correct the service manual as shown.
File this Supplement with the service manual.

☛ :Added Item (for KP-53HS30 S/N's 90000001 and up)

Section 6: DIAGRAMS (Page 63)
6-3. SCHEMATIC DIAGRAMS - D (2/3) BOARD CIRCUIT

Section 7: EXPLODED VIEWS (Page 95, 96)
7-4. CHASSIS
7-5. PICTURE TUBE

Section 8: ELECTRICAL PARTS LIST (Page 122, 125, 130)

COLOR REAR VIDEO PROJECTOR

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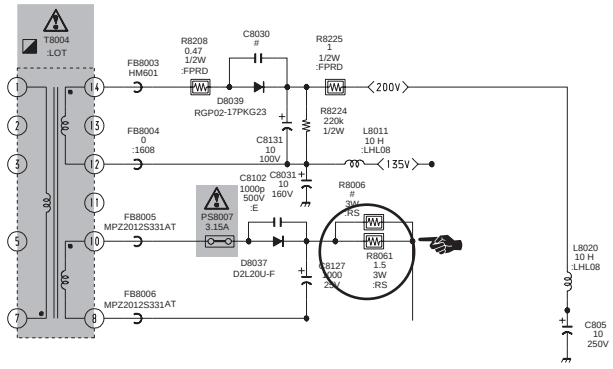
☛ : Added Item

SECTION 6: DIAGRAMS (Page 63) (for KP-53HS30 S/N's 90000001 and up)

6-3. SCHEMATIC DIAGRAMS - D (2/3) BOARD CIRCUIT



SECTION 7: EXPLODED VIEWS (Page 95, 96) (for KP-53HS30 S/N's 90000001 and up)

7-4: CHASSIS (Page 95)

REF. NO.	PART NO.	DESCRIPTION
164	A-1404-674-A	D MOUNT (VAR)

7-5: PICTURE TUBE (Page 96)

REF. NO.	PART NO.	DESCRIPTION
⚠ 205	1-451-537-22	DEFLECTION YOKE
⚠ 207	8-733-597-25	CRT 07MVC3(R)-L(LF)
⚠ 209	8-733-662-25	CRT 07MVC2(G)-L(LF)
⚠ 210	8-733-596-35	CRT 07MVC3(B)-L(LFG)

SECTION 8: ELECT. PARTS LIST (Page 122, 125, 130) (for KP-53HS30 S/N's 90000001 and up)

(Page 122)

REF. NO.	PART NO.	DESCRIPTION
	A-1404-674-A	D MOUNT, (VAR)

(Page 125)

REF. NO.	PART NO.	DESCRIPTION			
R8061	1-216-391-71	METAL OXIDE	1.5	5%	3W

(Page 130)

REF. NO.	PART NO.	DESCRIPTION
⚠	1-451-537-22	DEFLECTION YOKE
⚠	8-733-597-25	CRT 07MVC3(R)-L(LF)
⚠	8-733-662-25	CRT 07MVC2(G)-L(LF)
⚠	8-733-596-35	CRT 07MVC3(B)-L(LFG)

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